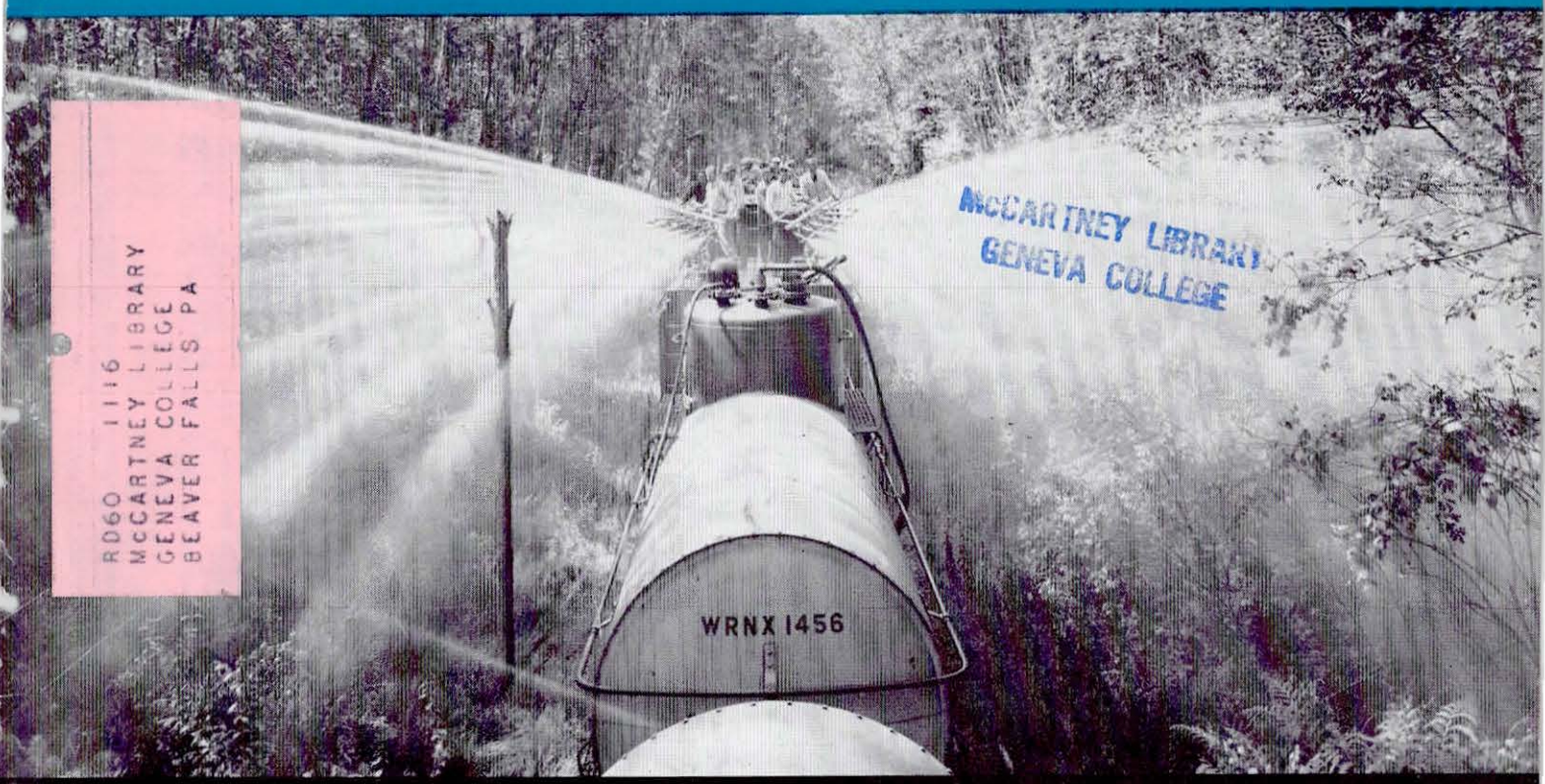
San Francisco Looks To Automatic Trains... p. 19

February 1, 1960

RAILWAY AGE *weekly*



RD60 1116
McCARTNEY LIBRARY
GENEVA COLLEGE
BEAVER FALLS PA

McCARTNEY LIBRARY
GENEVA COLLEGE

↑ Chemical Sprays: A Potent M/W Weapon

Battle Against Brush

RRs have more know-how than money... p. 14

60 cents A Simmons-Boardman TIME-SAVER Publication

Vernon Smith, B. R. C. Superintendent of Motive Power, discusses lubrication with Standard Oil's John Black

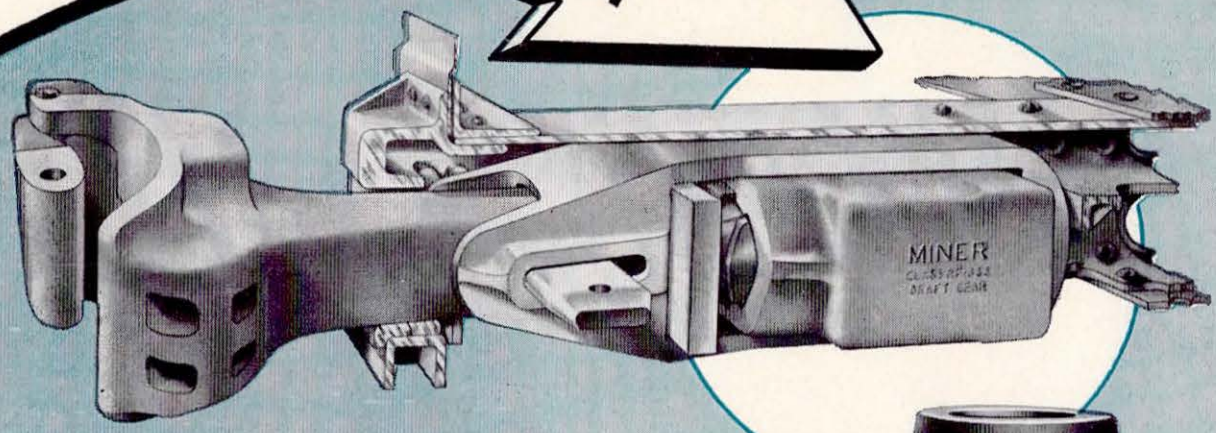
Every way he can, John Black uses his engineering training and experience to effect operating economies for The Belt Railway Company of Chicago. John's job is to think of ways money can be saved through better lubrication. It's his business to find ways to help the line save on the use of diesel fuel.

But John Black isn't employed by the B. R. C. His employer is Standard Oil. John's job at Standard is to work for the railroads that are his customers. He has 15 years' engineering and service experience with diesel equipment as background for his job. His experience includes service as an area engineer for a diesel locomotive builder plus submarine duty in the Navy. John has an engineering degree from Pennsylvania State and has completed the Standard Oil Sales Engineering School course.

Standard Oil has a staff of specialists who work only with railroads on the use of petroleum products. Like John Black, their job is to work for their customers. To have one of these men call on you anywhere in the 15 Midwest and Rocky Mountain states, just let the Railway Sales Department know. Write, wire or telephone, **Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.**

You expect more from **STANDARD** *and you get it!*

APPROVED FOR
UNLIMITED
APPLICATION



MINER

CLASS

RF-333

Friction Draft Gear

This Friction Draft Gear has fully demonstrated its protective qualities, and more and more cars handling special lading are being equipped with this super-capacity friction gear.

To ensure safer movement of every type of lading, use the service-tested Class RF-333 Friction Draft Gear.

W. H. MINER, INC. CHICAGO

"Railroads must mechanize to remain competitive"

says Mr. E. Frederic Uhrbock, Jr., Railroad Security Analyst, Bear, Stearns & Company

"Full benefit of diesel operation cannot be realized without complete automation of yards and CTC installations. Modern tools are essential for profitable operation."

This prominent analyst put his finger on the most important word in the future of the railroad industry—*automation*. It's the practical way that the industry can expand its operation, while it reduces operating costs.

Roads with CTC and automatic classification yards have reported a 30 to 40% return on their investment. Contact Union Switch & Signal for the latest facts on traffic control and classification yard systems.

"Pioneers in Push-Button Science"

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE, PENNSYLVANIA

NEW YORK ... PITTSBURGH ... CHICAGO ... SAN FRANCISCO

RAILWAY AGE *weekly* February 1, 1960 • Vol. 148, No. 5

Week at a Glance

Departments

Current Questions	13
Freight Car Loadings	31
Freight Operating Statistics	26
New Equipment	31
New Products Report	30
People in the News	25
Railroading After Hours	23
Railway Market	31
Supply Trade	28
The Action Page	38
Watching Washington	10
You Ought to Know	36

• Editorial and Executive Offices New York 7, 30 Church St.

JAMES G. LYNE, Editor
ROBERT G. LEWIS, Publisher
Executive Editor .... Joe W. Kizzia
Managing Editor .... Fred C. Miles
News Editor ..... Luther S. Miller
Traffic-Transportation .. G. C. Hudson
Mechanical
C. L. Combes F. N. Houser, Jr.
Signaling & Communications
Robert W. McKnight Robert J. Barber
Associate Editors
Rod Craib Harry M. Grayson, Jr.
Librarian ..... Edith C. Stone
Editorial Assistant .... June Meyer
Art Director.....Russell F. Rypsam
Design and Layout .. Joel Petrower
Production Manager..Joseph J. Menkes

• Chicago 3, 79 West Monroe St.
Western Editor ..... Gus Welty
Regional News .... William V. Tuite
Mechanical .... Norman E. Gillespie
Engineering ..... M. H. Dick
R. E. Dove E. W. Hodgkins, Jr.
Purchasing & Stores ..... Bert Enos
Editorial Assistant .. Wanda Brown

• Washington 4, National Press Bldg.
Washington Editor .. Walter J. Taft

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn. Second-class postage paid at the Post Office at Orange, Conn. James G. Lyne, chairman of the board; Arthur J. McGinnis, president and treasurer; Duane C. Salisbury, executive vice-president; George Dusenbury, vice-president and editorial and promotion director; Robert G. Lewis, Joe W. Kizzia, M. H. Dick, M. J. Flga, R. C. Van Ness, vice-presidents.

Ike wants more RR freedom ..... p. 9

President Eisenhower sees a need for "a real overhaul" of "antiquated laws and regulations" that hamper railroads. He also thinks more consolidations might strengthen the industry.

What's new in rolling stock p.12

New ideas in freight-carrying equipment reflect railroad moves to hold traffic, regain business that shifted to other carriers. Here's a picture report from four roads.

Cover Story—Railroads battle the brush menace..... p.14

The fight is being waged along an 80,000-mile front with an impressive arsenal of herbicidal chemicals and mechanical cutting devices. But maintenance men need more money to implement their technical know-how.

Cover Story—San Francisco looks to automatic trains..... p.19

The Bay Area Rapid Transit District is studying an automated rail transit network that could become a national model. Equipment proposals, due March 1, are the next step and BARTD hopes the system can be ready by 1965. Estimated cost: upwards of $700 million.

'Q' adds dispatcher radio p.22

Burlington train operations have a new look these days, as a result of dispatcher control of wayside radio stations. Two control systems, covering 549 miles, are in service. Expansion is under way. With this setup, dispatchers can talk directly to train crews on moving trains.

Switchers get roller bearings p.24

The EJ&E reports trouble-free performance after converting part of its locomotive fleet to roller bearings. The program is continuing, and the road reports important savings in maintenance and other expenses.

Piggyback task force goes to work p.32

A uniform code of interchange rules is being sought by the AAR Mechanical Division's Arbitration Committee. A four-man task force has been assigned the job of collecting TOFC data.

Total transport Reading goal p.35

The road is increasingly prepared to sell whatever kind of service a customer needs—rail, truck or water.

The Action Page—Suburban service, without subsidy.....p.38

Commuter service has taken on new importance to some of the country's biggest cities, and that importance rests with the cities, not with the railroads. Let those who demand the service pay for it. If the cities need federal aid to do so, it is **their** responsibility to seek it.

Short and Significant

Three of Trailer Train's five new members . . .

—Milwaukee, Texas & Pacific and Kansas City Southern—confirmed last week that they had joined the piggyback car leasing pool (RA, Jan. 25, p. 5). A fourth, Union Pacific, was expected to announce its membership following a board meeting late in the week. The fifth, a Pocahontas carrier, is awaiting board action scheduled this week.

Commissioner Arpaia has resigned . . .

from the ICC, according to well-based rumors circulating in Washington. The commissioner's office had no comment.

Hospitalization benefits for retired railroaders . . .

will be sought by the Railway Labor Executives' Association. RLEA will undertake to have them covered in pending legislation which proposed such benefits for persons covered by the general Social Security system. The proposed legislation would finance the new benefits by adding 0.5% to the Social Security tax. Presumably, the RLEA proposal would bring a like increase in railroad retirement taxes.

The work rules issue remained on dead center . . .

last week despite earlier indications that progress toward start of conference committee talks would be made by Feb. 1. The carriers, it's reported, have organized committees but the brotherhoods have not.

Wage negotiations neared collapse last week . . .

as the BLF&E broke off talks and asked mediators to proffer arbitration. The BLE indicated it would take the same course unless negotiations Thursday, Jan. 28, produced a basis for settlement. Both unions were expected to refuse arbitration, whenever proffered. The stage would then be set for spread of a strike ballot (a process requiring about 30 days to complete in each case) and the probable start of procedures to provide for emergency board handling of the disputes. The ORC&B was still in mediation last week, but a spokesman said developments Thursday and possibly Friday would probably determine "if there's any hope of reaching a settlement through mediation." Meanwhile, both the BLE and BLF&E reported settlement of disputes involving so-called "captive" roads not party to national bargaining.

Week at a Glance CONT.

Current Statistics

Operating revenues	
11 mos., 1959	$8,980,340,079
11 mos., 1958	8,727,008,232
Operating expenses	
11 mos., 1959	7,050,236,098
11 mos., 1958	6,888,226,710
Taxes	
11 mos., 1959	958,748,814
11 mos., 1958	876,893,397
Net railway operating income	
11 mos., 1959	672,127,835
11 mos., 1958	684,853,088
Net income estimated	
11 mos., 1959	484,000,000
11 mos., 1958	514,000,000
Average price railroad stocks	
Jan. 26, 1960	102.53
Jan. 27, 1959	108.33
Carloadings, revenue freight	
2 wks. '60	1,197,272
2 wks., '59	1,137,008
Freight cars on order	
Jan. 1, 1960	43,870
Jan. 1, 1959	27,596
Freight cars delivered	
12 mos., 1959	37,819
12 mos., 1958	42,760

Advertising Sales Department

Duane C. Salisbury—director of sales

New York 7, N. Y., 30 Church st., WOrth 4-3060
J. S. Vreeland—vice president;
F. T. Baker—district manager;
J. C. Lyddy—district manager

Chicago 3, Ill., 79 W. Monroe st., RAndolph 6-0794
J. R. Thompson—vice president;
J. W. Crossett—district manager;
Hale Carey

Cleveland 15, Ohio, 1501 Euclid ave., MAin 1-4455
H. H. Melville—vice president;
H. M. Blunt—district manager

Pittsburgh 19, Pa., Suite 203, Carlton House GRant 1-8186
C. J. Fisher—district manager

Atlanta 9, Ga., 22 Eighth st., N. E., TRinity 2-6720—J. S. Crane

Dallas 19, Tex., 3908 Lemmon ave., LAkeside 1-2322—Joseph Sanders

Los Angeles 17, Cal., 1336 Wilshire blvd., HUbbard 3-0390
Bayne A. Sparks—vice president

San Francisco 11, Cal., 244 California st., EXbrook 7-4990
D. S. Clark—district manager

London E.C. 1, Eng., 8/9 Clerkenwell Green
Sibley-Field Publishing Co., Ltd.

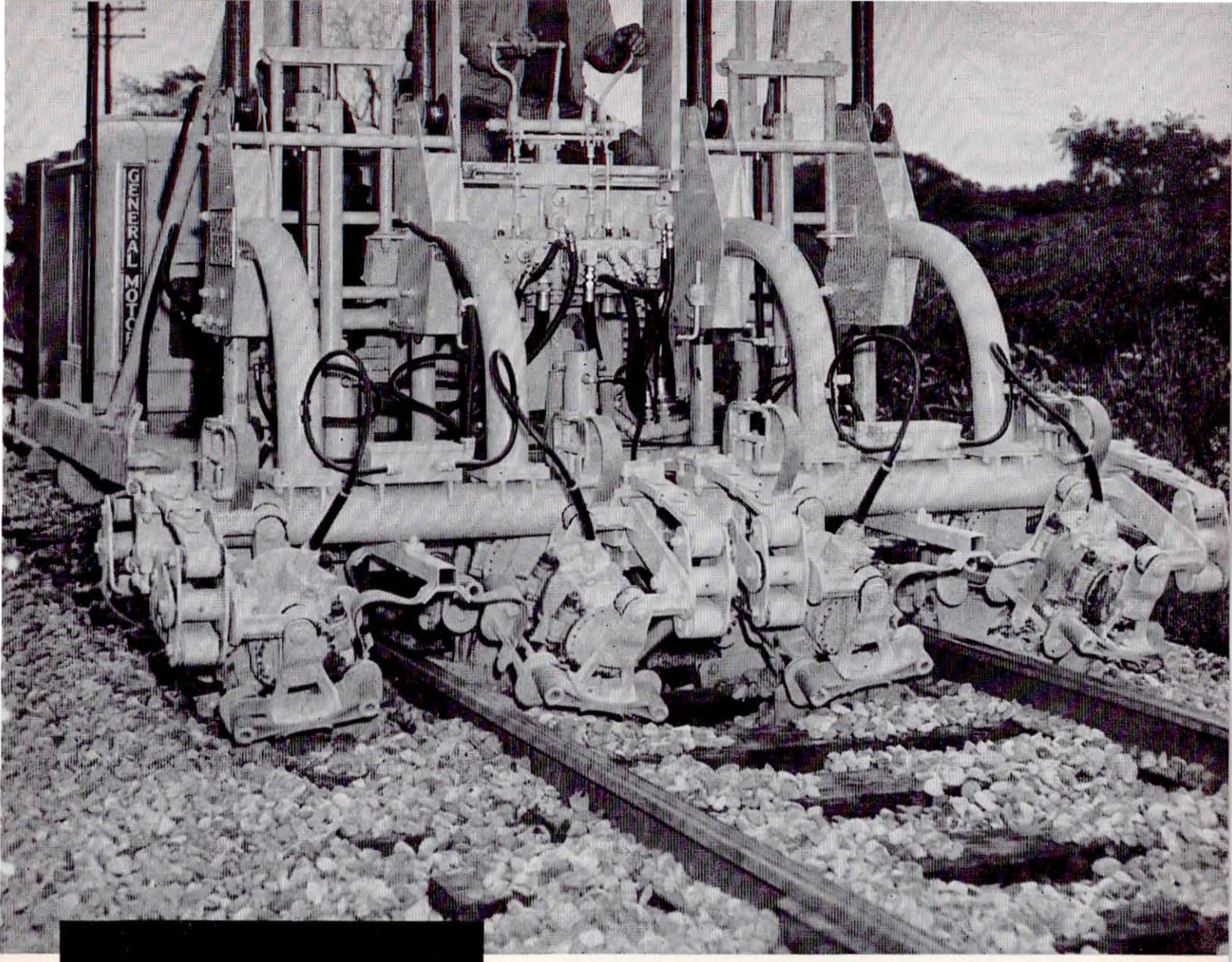
Frankfort am Main (16), West Germany
Wittelsbacher Allee 60
Georg J. Linder,
Continental European Representative

Tokyo, Japan
Shadan Hojin, 14
2-Chome Marunouchi
George E. Olcott

Subscription to railroad employees only in U.S. possessions, Canada and Mexico, $4 one year, $6 two years, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. In other countries, $15 a year. Single copies 60¢ except special issues. Address all subscriptions, changes of address, and correspondence concerning them to: Subscription Dept., Railway Age, Emmett St., Bristol, Conn.

Circulation Dept.: R. C. Van Ness, Director of Circulation, 30 Church St., New York 7, N. Y. POSTMASTER—SEND FORM 3579 to EMMETT ST., BRISTOL, CONN.

Printed at the Wilson H. Lee Co., Orange, Conn.



THE JACKSON TRACK MAINTAINER

To enjoy such OUTSTANDING preference IT'S BOUND TO BE BETTER!

Throughout the nation there are more JACKSON TRACK MAINTAINERS in use than all other machines in this category combined. And since equipment of this kind is purchased only after most careful comparison and investigation of actual performance, what could more forcefully indicate the true superiority of the JACKSON MAINTAINER.

The 1960 MODEL is even more powerful and faster than its predecessors. It also incorporates a number of other important mechanical improvements which further widen its margin of superiority. Write, wire or phone for the complete information, and judge for yourself.

Attractive acquirement plans

JACKSON VIBRATORS, INC.

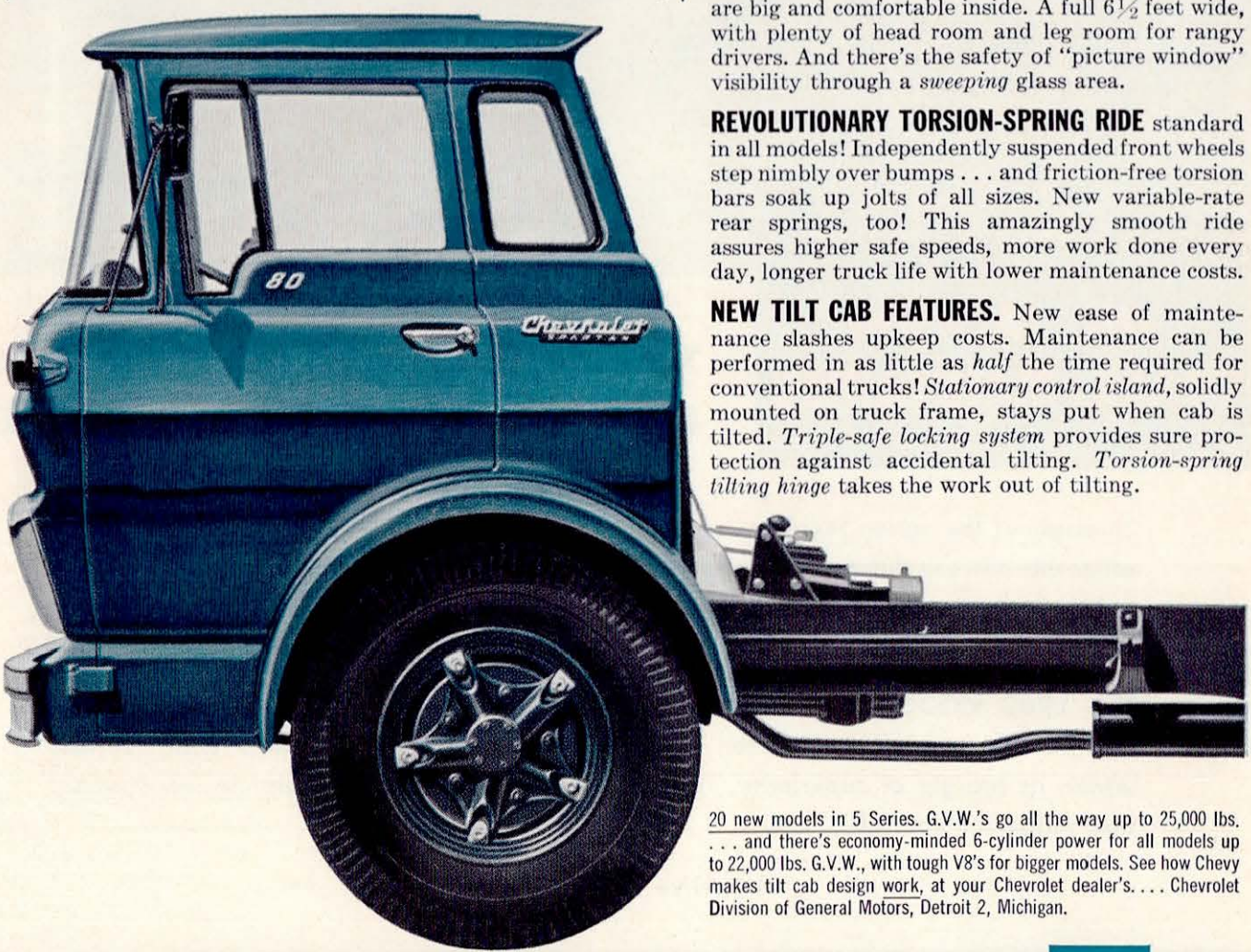
LUDINGTON, MICHIGAN

They're built like "tilts" should be built —that's the story on this new line of trucks from Chevrolet. All of the special advantages of tilt cab design—compactness, extra payload capacity, easy maintenance, maneuverability—are better than ever before. And Chevy brings you some extra-special benefits, too!

INTRODUCING **SHORT NEW**

CHEVROLET TILT CAB TRUCKS

72" BUMPER TO BACK OF CAB



MOST COMPACT IN ITS CLASS for higher profit payloads. Six-foot-bumper-to-back-of-cab dimension gives you more cargo space than ever before (almost 60 cubic feet more than other tilt cab trucks!). You can carry bulkier payloads in a bigger body; and you can carry *heavier* payloads, too, because the extra space means more of the load weight can be carried by the front suspension.

BEST MANEUVERABILITY. With comparable body sizes, new Chevrolet tilt cabs are as much as 2½ feet shorter overall than conventional models and save up to 48 inches in wheelbase. This *minimized* length and wheelbase pays off in easy handling.

ROOMIEST CAB in its class! New Chevy tilt cabs are big and comfortable inside. A full 6½ feet wide, with plenty of head room and leg room for rangy drivers. And there's the safety of "picture window" visibility through a *sweeping* glass area.

REVOLUTIONARY TORSION-SPRING RIDE standard in all models! Independently suspended front wheels step nimbly over bumps . . . and friction-free torsion bars soak up jolts of all sizes. New variable-rate rear springs, too! This amazingly smooth ride assures higher safe speeds, more work done every day, longer truck life with lower maintenance costs.

NEW TILT CAB FEATURES. New ease of maintenance slashes upkeep costs. Maintenance can be performed in as little as *half* the time required for conventional trucks! *Stationary control island*, solidly mounted on truck frame, stays put when cab is tilted. *Triple-safe locking system* provides sure protection against accidental tilting. *Torsion-spring tilting hinge* takes the work out of tilting.

20 new models in 5 Series. G.V.W.'s go all the way up to 25,000 lbs. . . . and there's economy-minded 6-cylinder power for all models up to 22,000 lbs. G.V.W., with tough V8's for bigger models. See how Chevy makes tilt cab design work, at your Chevrolet dealer's. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

1960 CHEVROLET STURDI-BILT TRUCKS

CHEVROLET

Ike Wants More RR Freedom

► **The Story at a Glance: President Eisenhower thinks there should be "a real overhaul of all the regulation and controls" so the railroads would have "a chance to be prosperous."**

This Presidential view was expressed last week. Mr. Eisenhower said he thinks the railroads "are governed by antiquated laws and regulations," although "some of the trouble is their own."

"No one," declared the President of the United States last week, "could be more concerned than I am about the plight of the railroads."

The President was responding to a reporter's question at his Jan. 26 press conference. The question was put this way:

"Our railroads complain that they suffer from competition with government subsidized shipping, aviation, highway transport. Now, if we are planning to put the Minuteman and other solid fuel missiles on railroad cars as launching pads [RA, Jan. 25, p. 40], how are we going to save the railroads from being ruined by this competition and not being here when we need them?"

The President first said he thought the question was "a pretty good one until you got the Minuteman in it." As to that, he went on to say merely that "no one knows exactly how those things will happen now."

Then came his expression of concern about the plight of the railroads and his reference to "antiquated laws and regulations." To point up what he had in mind when he said some railroad troubles are "their own," the President referred to "the great golden days of the 'Seventies and early 'Eighties, when everybody could get rich by either building a railroad or pretending he was going to and selling stock."

Mr. Eisenhower went on to tell the reporters that if they would read about what happened in the "late 'Sixties and early 'Seventies," they would find it "mostly scandal."

Indicating that he may think consolidations are part of the answer to railroad problems, the President added:

"Well, everybody wanted an independent railroad. I think our railroad systems are proliferated into so many different independent things. Of course, everybody likes to be president—don't forget that. So you've got these things that are not always economic and efficient."

It was "even after allowing for that," as he put it, that the President called for an overhaul of the regulatory set-up. He said his Advisory Committee on Transport Policy and Organization, the so-called Cabinet Committee, had proposed "something of that order" four years ago.

"And, as a matter of fact," the President said, "my transportation committee remains alive." Presumably, this was a reference to the Department of Commerce's work on the transport study which the President requested a year ago. "So," Mr. Eisenhower added, "I am all for reforms in this whole thing in the railroads, I assure you."

The President recently advised Congress that the Department of Commerce's study, "now nearing completion," should provide "a sound basis for administrative actions and legislation that may be needed to assure adequate and balanced growth of all branches of the nation's transportation system."

It is understood that the Commerce Department's report on this transportation study was at the White House last week, though not before the President. The submission to him awaited further processing in the way of checking the recommendations with various other interested government agencies.

This processing, of course, could bring about some calls for revisions, but that should not cause much delay in getting the report into final form. Whether it will be released by the White House or used only as a basis for Presidential recommendations to Congress could not be learned last week.

The Cabinet Committee report which the President mentioned was made public at the White House in April 1955. That committee was headed by former Secretary of Commerce Sinclair Weeks.

It made 11 recommendations, including rate-freedom proposals which would have granted much more pricing freedom to railroads and other common carriers than they got in the 1958 Transportation Act's Section 15a(3).

Congress 'Unlikely' to Act in '60

Congress is unlikely to act on much, if any, major transportation legislation during its current election-abbreviated session.

That, at least, is the inference to be drawn from a Jan. 27 statement by Warren G. Magnuson, chairman of the Senate Interstate and Foreign Commerce Committee—that there will probably be no report from the study group which is surveying transportation regulation under S. Res. 29 prior to the anticipated "early adjournment" of Congress. He made the statement in an address to the 25th anniversary meeting of the Transportation Association of America; but made it, he told Railway Age, without reference to President Eisenhower's press-conference remarks on the preceding day.

The survey group's primary job, the Senator indicated in his TAA talk, "is to find out if our fine, but segmented, system of transportation is as good as it can be. Is it good enough, for example, to help us meet the increasingly tough problem of world competition?

"Tremendous growth in transportation itself has made it hard to establish a national policy. Rapid developments have led to some lack of discernment in putting together a sound program. Our regulatory commissions appear to be afflicted with dynamic apathy. We have no clear-cut objectives or policy for the future."

NY 'Full Crew' Repeal Recommended

The New York Public Service Commission has unanimously recommended outright repeal of the state's 47-year-old "full crew" laws. The PSC wants to retain, however, its own statutory right to regulate crew consists.

In what amounted to a sweeping victory for management's point of view, the PSC found that:

- There's no relationship between "full crew" laws and the safety of railroad operations.
- New York's "full crew" laws have caused "a waste of manpower and money."
- "The railroads are vitally essential to the commerce and economic welfare of our state and nation and should not be subjected to unnecessary and burdensome statutory requirements, the continued need for which cannot be justified by any reasonable tests."

The commission's recommendations were contained in a report to Governor Nelson Rockefeller. The chances of election-year legislative action to implement the report were a subject of some speculation last week. During public hearings last fall, the railroad unions bitterly opposed repeal of the crew-consist laws.

The PSC conducted its inquiry into "full crew" laws on the order of the 1959 legislature (RA, Oct. 5, p. 34).

During last fall's hearings, management witnesses testified that New York railroads were forced to employ over 2,000 excess workers at a cost of nearly $15,000,000 a year. The PSC report, however, said there were only 664 railroad workers employed as a direct result of the "full crew" laws. The PSC put their cost to the industry at $4,400,000 a year. Other "excess" crewmen, said the commission, are protected by labor agreements.

The PSC said it was not attempting to resolve "the sharp conflict involving the need in general for the employment of firemen on diesel locomotives used in freight and yard service, the need in general for third brakemen in freight service and the need in general for the few other mentioned crew members."

The commission noted that the diesel-firemen issue has been raised by the railroads in current negotiations and that "it is unlikely that the controversy will be settled on any other than a national basis."

The commission emphasized that public safety wouldn't be compromised by repeal of the "full crew" laws—"since this commission, upon the event of such repeal, will be free to exercise the broad powers conferred by subdivision 2 of section 49 of the Public Service Law and prescribe by rule, regulation or order such minimum crew requirements as may reasonably appear to be required in the interest of safe and adequate railroad operations and service."

Watching Washington *with Walter Taft*

- **THE ICC HAS REJECTED** a rate freedom theory advanced by carriers on the basis of the 1958 Transportation Act's rate-freedom provisions. The theory holds that where proposed reduced rates are on a compensatory level, especially where they are above full costs, they should be authorized by the Commission—regardless of the net revenue effect upon carriers publishing them or upon carriers generally.

THE COMMISSION'S VIEW was set out in a decision (in I&S No. M-11248) which requires railroads and truckers to cancel tariffs publishing competitive rate reductions on cigarettes and manufactured tobacco from North Carolina and Virginia to central territory. Where such high-grade traffic is involved, the theory is "too narrow and out of harmony with the national transportation policy," the Commission said.

A REQUIREMENT of the rate-freedom provisions is that their administration shall be with due consideration for objectives of the transportation policy. The Commission thinks this gives it power, exercised here, to avert rate wars which "unnecessarily dissipate" revenue from high-grade traffic.

THE DECISION calls this "much needed revenue." That's because it "enables carriers generally to operate profitably and the rail carriers in particular to defray deficits which ensue from passenger-train and less-than-carload services and from the transportation of many commodities which do not move freely at rates yielding full costs."

THE RAILROADS presumably were satisfied with what the Commission did—if not with its rejection of the rate-freedom theory. While they defended their proposed rates, they emphasized their willingness to cancel them if the proposed cuts in truck rates were ordered cancelled.

- **HAZARDS OF AIR TRAVEL** in 1959 appear to have been more than 14 times as great as hazards of travel by rail. The Civil Aeronautics Board estimates that last year's fatality rate of the regularly scheduled domestic airlines was 0.65 passenger deaths per 100 million passenger-miles. The railroad rate for the year was about 0.045.

- **MORE COMPREHENSIVE REVIEW** of tariff filings is planned by the ICC. If Congress approves its proposed budget for the next fiscal year, beginning July 1, the Commission will add 19 employees to its Bureau of Traffic. Some of them will be tariff examiners and others will be assigned to the Board of Suspension, where the work load has increased substantially. To "beef up" its enforcement program, the Commission also hopes to add 13 employees to the staff of its Bureau of Inquiry and Compliance.

...where railroad progress is cast in steel

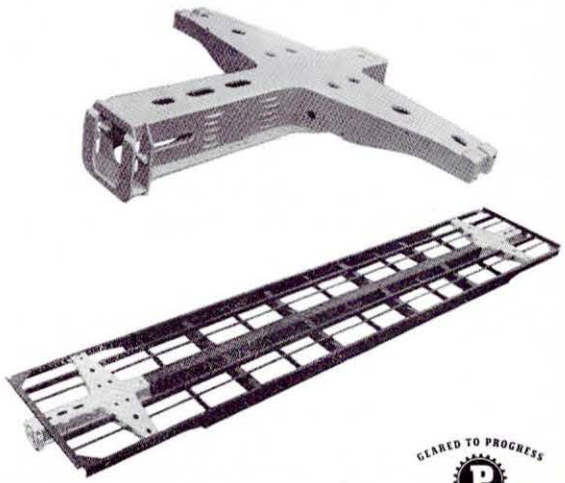
800 NEW UNION PACIFIC BOX CARS Have Underframes with Cast Steel Ends Supplied by GENERAL STEEL CASTINGS

These underframes furnished complete to the Union Pacific Railroad by General Steel are composites of sturdy one-piece end castings and rolled steel shapes.

The cast steel ends:

Eliminate failures in the critical body bolster area
Increase resistance to impact
Reduce maintenance
Increase car life
Resist rust and corrosion

Whether for new equipment—or rebuilding of present freight cars—General Steel can help you get maximum car life with minimum maintenance.



GENERAL STEEL CASTINGS

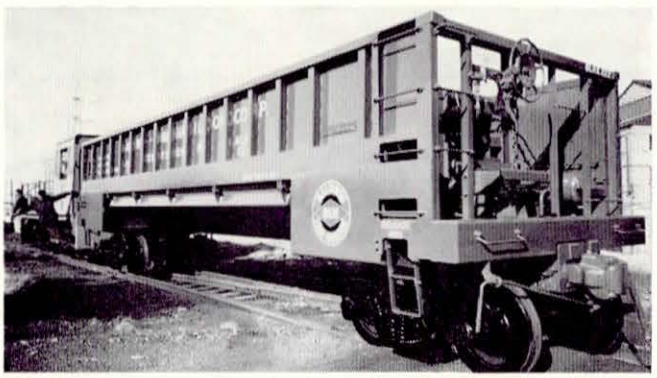
GEARED TO PROGRESS
MEMBER

GRANITE CITY, ILL. · EDDYSTONE, PA. · AVONMORE, PA.

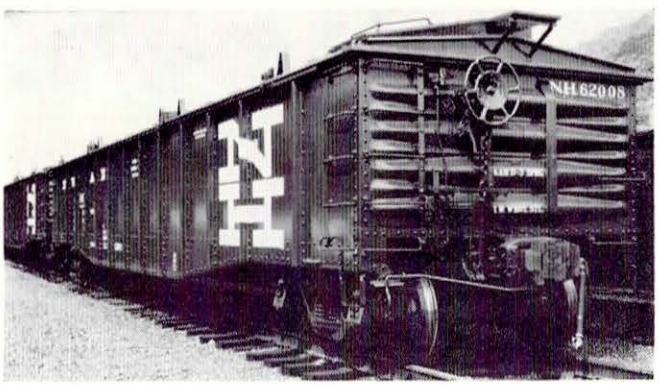
SANTA FE TRI-LEVEL AUTO FLAT CAR leaves Wixom, Mich., with its initial shipment: eight Lincoln and Thunderbird cars stacked three-deep on the 53½-ft flat (RA, Jan. 25, p. 5). Equipped with a super shock control underframe, car is prototype of 88-ft car which will carry 12 standard autos or 15 compact models. Universal tie-down arrangement will allow shipment of any mixture of autos. AT&SF has 1,700 box cars with 10-in. travel shock control underframes. New design, with 18-in. travel, cushions impacts at 14.5 mph as well as standard draft gears at 4 mph.

What's New in Rolling Stock

PLYWOOD PANELS 1-in. thick and up to 41½ ft long are being used by Spokane, Portland & Seattle to raise sides and ends of drop-bottom gondolas for wood-chip service.



COPPER-CONCENTRATE hauling Southern Pacific urged Baldwin-Lima-Hamilton to develop this 88-ton, 950 cu ft, 63,000 lb drop-bottom dump car to cut in-transit ore loss.



COVERED GONDOLAS for handling brass shipments were recently delivered to New Haven by Bethlehem Steel. The 15 cars join growing U.S. fleet of covered gondolas.

Where Has Hotbox Odor Gone?

"When AAR car oil is heated it gives off very little smoke and odor up to about 300 degrees F. By the time this temperature is reached, a journal is already in trouble, and progression from this point to major overheating is relatively rapid.

"It would be most desirable to detect any overheating at its earliest stage of transition from normal operating temperature to the first phase of elevated temperature. A chemical in the oil that would start emitting smoke and a peculiar odor at or slightly above this critical temperature might be of some assistance in early detection of hotboxes. It must be realized that it is more difficult now to detect a hotbox in its early stage of overheating than it was 20 or 30 years ago when trains were much shorter, operated at lower speeds, and were usually given on-the-ground inspection several times between terminals while stopped for water and coal.

"The hotbox has been with us a long time and it is the writer's opinion that it will continue to be a major source of our operating troubles until we replace the present outmoded solid bearing assembly with modern anti-friction type bearings. When our freight trains are fully equipped with roller bearings we can then forget about smoke and distinctive-odor-producing oils and concentrate on other operating problems.

"The hotbox will become a rare occurrence and lose its importance as a major topic of discussion, as it is now, whenever two or more railroad men get together."—*B. K. Conrad, engineer of tests, Atlantic Coast Line Railroad.*

"It has been our experience that there is some justification for statements that present day hotboxes do not provide as much smoke and odor as in the past. This is the result of increased use of journal box lubricating devices, and the various changes that have occurred in recent years in the general specifications of freight car journal lubricating oils, along with tighter fitting box lids. We think this is especially true so far as the emission of smoke is concerned.

"We are not aware that there is any advantage to adding an odor-producing chemical to present freight car journal boxes. The effectiveness of odor and smoke bombs on passenger trains is actually questionable. Freight car brasses equipped with both smoke and odor bombs have been tried at various times in the past, but they did not prevent failures, nor did they contribute to even a partial solution to the problem. In addition, various other schemes have been tried, in controlled reliable road tests, using waxes which melted at known temperatures, color sensitive paint applied to the truck side frame, and temperature-actuated air release valves. With the exception of the latter device, all have actually been tried on the New York Central. At present we are interested in perfecting hotbox detectors, or some other available prewarning mechanism, in order to answer this problem."—*W. B. Salter, general manager, southern district, New York Central Railroad.*

A forum for railroaders who want to explore questions of importance to their industry, this column welcomes both questions and answers from readers at all levels of responsibility in the industry and associated fields. We'll pay $10 to any reader submitting a question that forms the basis for a column discussion. Address correspondence to Question and Answer Editor, Railway Age, 30 Church St., New York 7, N.Y.

Where Has Hotbox Odor Gone? is appearing in this space for the fourth time. Unless someone has a strong desire to pursue this topic further, this will end our discussion of why hotboxes on today's trains seldom produce distinctive smoke and odor that indicated hotboxes in the past. On this question, or any other though, we're willing to open our pages again whenever someone has something new or interesting to add.

Why Not Standard Railroad Wrist Watches?, we asked in this space back in September. The answers in the five columns in which the question appeared generally favored the pocket models. Today's letter indicates that at least one railroad feels strongly enough to permit wrist watches to be used.

Are there any other railroads that permit a wrist watch to be used in train operations?

Why Not Standard Railroad Wrist Watches?

"Effective with our new book of rules which went into operation on December 1, 1959, we eliminated the use of standard watches. Our rule now requires only that designated employees carry a reliable watch. A reliable watch is described as follows:

1. Either a wrist watch or pocket watch.
2. Must have a jewelled movement.
3. Face must be graduated in minutes.
4. Must be accurate within one minute in eight hours.

"The basis for making the change was the decline in importance of time in the operation of our railroad. First, we no longer have any scheduled trains. Second, we have done away with the use of train orders, using instead a simpler more absolute form where necessary. Third, we are almost entirely centralized traffic controlled.

"We still require the employees to compare their watches with a standard clock before going on duty.

"Although we have been using this rule only a short time we have experienced no difficulty and anticipate none.

"I feel that there are no doubt many railroads that could make this same change in watches and watch requirements if they would only re-evaluate the importance of time on their properties."—*J. R. McCormick, trainmaster, Bessemer & Lake Erie Railroad.*

VISION CAN BE IMPAIRED by brush on inside of curves, as this main-line photo shows.

Railroads

► The Story at a Glance: Brush is a problem on many thousands of miles of railroad right of way. It fouls wire lines, obstructs the vision of engine crews and motorists, gets in the way of trainmen and track workers, and produces a fire hazard. Maintenance men are fighting it with mechanical cutting devices and herbicidal chemicals. They have the know-how but need more money.

The top maintenance officer of a large road and several visitors were huddled around his desk studying some photographs. Suddenly the door opened and the president of the company came in unannounced. Voicing an apology for the interruption, he turned to leave when the photographs caught his eye. His interest aroused, he asked, "What's that, a brush cutter?"

When told it was, he stayed to examine the pictures and ask questions about the device. At his suggestion a demonstration was arranged which he attended. What's more, the chairman of the board was there, too!

The reason for this interest in brush cutting on the part of busy railway executives is that brush, once considered hardly more than a nuisance by railroads, has become an acute problem. On this road it is estimated that brush is a problem on 4,000 miles of line.

◀ BULLDOZER-SIZED PROBLEMS are created by dense, trackside brush growths like this.

PORTABLE SAWS, with gasoline engine carried on operator's back, are major brush weapon. Shown is Meco Southworth cutter.

TRACTOR-MOUNTED MOWERS are in wide use. In demonstration here, International Danco mower is teamed with IH tractor.

Battle the Brush Menace

Reports from a cross section of the larger roads indicate there are about 80,000 miles of right of way in the United States on which the presence of brush constitutes a problem. If the average right-of-way width is assumed to be 100 ft, the total brush-ridden area figures out to be nearly a million acres. This means railroads are confronted with the problem of checking brush growth over an area larger than the state of Rhode Island.

Even this comparison doesn't give a true picture of the magnitude of the problem. To do so it is necessary to point out that in the parlance of railroad vegetation control the term "brush" embraces a great deal more than merely low-growing shrubs and bushes. It includes the full range of woody growth from the lowest shrub to the highest tree. Railroad rights of way today have plenty of both, even to the point at some locations where the "brush" threatens to encroach on the track itself.

Why is brush more of a problem today than in past years? The answer is found in two words—men and money. Years ago it was traditional for section crews to spend a large part of their time in the winter hacking at the brush on the right of way with brush hooks, axes and other tools. Because frost in the roadbed kept these forces from working on the track, brush cutting was considered a good way for them to spend their time. "In this way," explains a maintenance man, "brush was kept under control as a matter of course and without fanfare."

The time came when, because of increasing wages and reduced maintenance allotments, railroads began to thin down their section forces, even to abolish them altogether, with the work being taken over by mechanized extra or district gangs. The result was that winter brush-cutting was greatly reduced on many roads.

One maintenance man with thousands of miles of brush to worry about recalls that his troubles from this source date from the time, ten years ago, when section gangs were discontinued. "When saplings will grow to a height of 8 to 10 ft the first year, and are allowed to grow over a period of years, it isn't long," he says, "before you've got a real problem on your hands." It isn't that he is critical of the decision to cut the track forces. He is merely saying the brush problem is a by-product of the cost-cutting activities that have been necessary on every road.

The point is that today brush is threatening literally to take over thousands of miles of railroad right of way. To walk along sections of track in different parts of the country is equivalent to visiting a vast arboretum featuring species of woody growth native to the North American continent. They'll all be found. But the ones seen most often include maple, alder, poplar, willow, oak, box elder, cottonwood, elm, birch, ash, larch, sycamore, pine, fir, hemlock, gum, sumac, locust, redbud, plum, blackberry, elderberry, sassafras, sourwood and vines of every description.

To the list should also be added many types of weeds. The so-called "horse weed," for example, found practically everywhere, frequently grows in dense thickets to a height of 10 to 12 ft.

In some places brush on the right of way is confined to scattered clumps. At the other extreme are locations where it grows densely from the right-of-way fence to the track shoulder. Trains on some secondary lines literally move through a tunnel formed by brush and trees that meet in an arch over the track.

Why Brush Is Objectionable

Brush is unsightly and its presence frequently draws complaints from owners of adjacent property. But the primary objections to it from a railroad viewpoint are based on more practical considerations. The more important of these are:

- **Interference with pole lines.** High-growing brush frequently fouls communication lines, sometimes causing damage and leakage of current. It also interferes with the activities of linemen.
- **Interference with visibility.** High-growing brush may obscure the vision of engine crews and motor-car operators, particularly when it is present on the inside of curves. By obstructing the vision of motorists it becomes a safety hazard at grade crossings.
- **Effect on clearances.** Brush growing close to the track may scrape the

CONTINUED ON PAGE 18

Biggest "Roller Freight" order yet:

L&N orders freight cars tapered roller

The Louisville and Nashville has placed a record-breaking order for 3,000 "Roller Freight" cars—including covered and open-top hoppers, gondolas and DF box cars. And 2,700 of these cars will roll on Timken® *tapered* roller bearings.

This order brings to over 58,000 the number of freight cars on Timken bearings in service or on order. The switch to "Roller Freight" is rolling as never before. In 1959 alone, more than 32,000 cars were ordered with Timken bearings; 92 railroads and other freight car owners have joined the switch.

In their effort to bring shippers better and better freight service, railroads and private car owners are equipping a high percentage of all new cars with Timken bearings. With cars on Timken bearings, the railroads are eliminating the hot box problem—No. 1 cause of freight train delays. Timken bearing equipped cars average over 84,000,000 car-miles between overheated bearings. And when all freight is "Roller Freight", the railroads will save an estimated $288,000,000 a year in operating and maintenance costs—about $144 per car. Get the full story on the big savings of "Roller Freight" from your Timken bearing representative today.

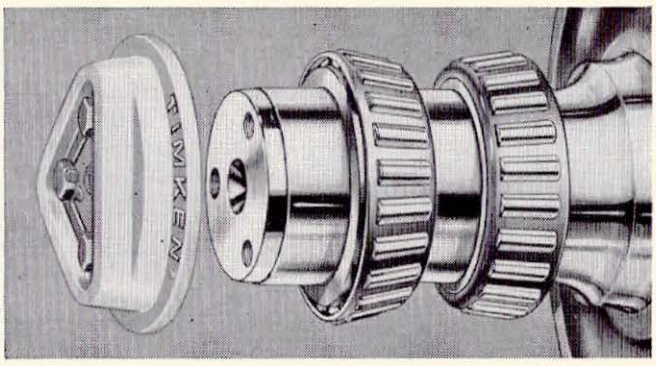
2,700 new on Timken® bearings

The Timken Roller Bearing Company, Canton 6, Ohio. Cable: "TIMROSCO". *Makers of Tapered Roller Bearings, Fine Alloy Steel and Removable Rock Bits.*

BETTER-NESS rolls on

TIMKEN®

tapered roller bearings



sides of equipment and interfere with the movements of trainmen when making the train inspections that are sometimes necessary between stations.

- **Effect on track maintenance.** Track men complain that brush hinders the activities of track workers, helps keep unwanted moisture in the road-bed, prevents proper inspection of fill conditions and even promotes the drifting of snow.
- **As a fire hazard.** Because of this consideration, some states require that railroad rights of way be kept free of brush and other combustible material. Brush also interferes with the plowing of fire lanes.

These considerations are causing railroad management to show concern over the greater incidence of brush on railroad property. This concern, however, has not necessarily meant appreciably larger appropriations for dealing with the problem. Grumbled one maintenance officer: "My management may be concerned about brush but not enough to give us the money needed for an adequate brush-control program."

In spite of such comments, maintenance men generally, being aware that the brush problem was created in the first place by shortage of money, are resigned to the premise that only low-cost methods of dealing with it will be acceptable to their managements. For use in the fight against brush on this basis they have two major weapons—power-driven brush-cutting machinery and chemicals.

Power-Driven Brush Cutters

Mechanical methods of cutting brush probably got their start on railroads when a track supervisor first borrowed a chain saw for this purpose from the bridge and building department. Portable saws, specially designed for cutting brush, are now available. These are one-man circular saws, each powered by a lightweight gasoline engine carried on the back of the operator. Experience of a typical road is that two men with these saws can cut about an acre of brush a day.

Various types of tractor-drawn or tractor-mounted brush-cutting devices have also come into use on railroads. One road is using a brush-cutting attachment mounted on a crawler tractor equipped with track shoes so it may be operated on rails as well as on the ground. Even bulldozers have been pressed into service against brush.

In one instance, in more prosperous days, a railroad kept a stretch of right of way in a plowed-up condition by disking it on a cycle of every three or four months. This proved to be an effective, though costly, method.

When brush is cut, shoots usually sprout quickly from the stumps. At this point many railroads are making use of their second weapon against brush—herbicidal chemicals. They have learned that application of proper formulations to the stumps after brush has been cut will kill the plant entirely. For this reason, use of chemicals in combination with mechanical brush cutters is increasing on railroads. However, the most common practice is to apply the chemicals to brush in its natural state.

Herbicides Enter the Picture

It was the introduction in 1945 of the hormone-type brush killers—2,4-D and 2,4,5-T—that opened the door to the possibility of large-scale brush control at a reasonable cost. These herbicides affect the growth processes of the plant by being translocated within its circulatory system. Ammonium sulfamate, which attacks the plant by a combination of translocation and surface contact, also came into the picture at about the same time.

These chemicals, mixed with water or oil or both, are generally applied to the foliage of the plants in the form of a spray. They may also be applied to the lower part of the stems of the plants (called basal-stem treatment), but treatment of this type is seldom used on railroads because of its higher cost.

Because spray from the hormone-type herbicides may cause damage to crops along the right of way, low-volatile and non-volatile versions are available to minimize this problem. Because it is non-volatile, ammonium sulfamate can be used with relative safety near agricultural plants.

[The cover photograph shows a spray train applying chemical herbicides to a heavy growth on both sides of the track.]

Another method of applying hormone-type herbicides was tried out last year. Known as "cane broadcast treatment," the method involves application of the chemical directly to the stem of the plant after about November 1 and until mid-March. Two advantages are claimed for it: (1) The length of the spraying season for brush is extended; and (2) it may be used in areas where crop damage is a problem with foliage treatment.

Increasing interest is being shown by railroads in granular or pelletized materials for brush-control. Materials of this type, referred to generally as soil sterilants, are said to be effective in treating species of brush that have proved resistant to foliage-type applications. There is a tendency to regard them favorably also because their application requires no water, a commodity not as plentiful on railroads as it was in the days of steam power.

Authorities on the subject of brush control are emphatic in stating that a well-planned, long-term systematic program of control must be followed if effective results are to be obtained economically. Chemical treatment on a sporadic basis is not considered sufficient. "An additional year or two years' growth may often increase the cost of a foliage-type treatment as much as 50 to 100%," says Cleston Parris who, as agronomist on the AAR research staff, is a recognized authority on brush control."

Yet most railroads, according to a Railway Age survey, are still attempting to deal with the problem on a piecemeal, stop-and-go basis. The fact that brush-control methods are still in a state of flux is partly responsible for this state of affairs. But the inability or unwillingness of management to commit itself to the expenditures necessary for a consistent program is rated an important factor by maintenance men.

Some roads are making progress in establishing long-range brush-control programs. An example is a southwestern road with 4,000 miles of line on which brush is a problem. It has set up a program calling for 1,000 miles to be sprayed each year for four years. The aim in this phase is to eradicate the easier-to-kill species. In the fifth year the plan is to start the cycle over again, using a formulation designed to destroy those species that are harder to kill.

The result, as visualized by this road's specialist on vegetation control, will be a right of way free of brush and covered with low-growing grass. "Experiments have shown," he explains, "that grass takes over as the brush disappears." He feels also that seeding with grass will help in bringing about the transition.

On another road the engineer in charge of brush control has been instructed to prepare an estimate of the cost of a similar long-range program. What he is contemplating is a program involving spraying a given stretch of right of way the first, third and fifth years. Thereafter he figures it will suffice to spray every fifth year. His objective is also a grass-covered right of way free of brush.

In fact, a grass-covered right of way is the dream of many maintenance men. Rapid progress is being made in accumulating the know-how required to make that dream come true. What is needed now, they say, is the money to implement the know-how.

City Looks to Automatic Trains

The Story at a Glance: San Francisco Bay area commuters are heading into the age of automation. If all goes well, they'll arrive in about five years.

The five-county Bay Area Rapid Transit District is studying eye-opening engineering reports which hold out this future for the commuter:

- **He'll ride in fast, comfortable trains powered by electricity from either hydroelectric or atomic power sources.**
- **His trains will be programmed by an electronic computer which will dispatch and control all train operations.**
- **He'll pay for his ride by cash (or token) or by a ride-now-pay-later credit card system.**
- **He'll ride either a suspended or supported rail system—final decision on equipment hasn't been made, but manufacturers have until March 1 to submit proposals on equipment they recommend and would produce.**

If San Francisco and the Bay area wind up in the death grip of the concrete octopus, it won't be for lack of imagination in trying to avoid it. And in about four weeks, members of the Bay Area Rapid Transit District will have their first definite data on what they envision as the mass transportation network of the future.

As matters stand, the district's work breaks down into two principal engineering problems: the type of rail equipment to be used; and the train control system to be installed.

Proposals are due March 1 from equipment manufacturers, present and potential. Definite proposals and cost estimates are expected during the next two months on a fully automatic train control system.

Plans call for submission of the program to the five counties' boards of supervisors this summer and to the electorate in November. Both groups must approve, the voters through a ballot on issuance of bonds to finance the system.

Engineers estimate the entire transit system can be placed in operation by 1965, if voters approve the bond issue proposal. Indications are that the bond total may run as high as $700,000,000 (RA, Aug. 17, 1959, p. 14).

As of late January, about a dozen equipment manufacturers remained on BARTD's list of potential suppliers. Among companies contacted are Budd; Pullman-Standard; St. Louis Car; Boeing Aircraft; General Dynamics; Lockheed Aircraft; North American Aviation; Northrop Aircraft; Alweg International; Goodell Monorail; and Societe Lyonnaise Des Eaus Et de L'Eclairage S.A.F.E.G.E.

The base estimate for the bond issue will be predicated on a supported, two-rail system. Alternate estimates will be prepared on other systems. Operational requirements—speed and safety, primarily—will dictate choice of equipment. Basic specifications call for equipment capable of 45-mph average speeds, with a range as high as 75 to 80 mph. Acceleration rate must be between 3 mph and 3.7 mph per second; similar braking rates are required, but positive emergency braking will not be less than 4.5 mph per second. Trains will not exceed 750 ft in length, but will have capacity for 750 passengers.

BARTD is specific on its choice of automatic control to handle the high-speed operation.

"High rates of acceleration and deceleration, coupled with high balancing speed, minimum headway and operation on a grade-separated right-of-way, change completely the philosophy of system operation," the board notes. "The stringent operating requirements make it doubtful that manual train control, as customarily applied, would be sufficient to provide satisfactory operation. Automatic operation and control will be an essential part of the overall system design."

Controlled by Computers

To as great a degree as possible, the system will be controlled by electronic computers, which will be programmed to analyze all factors affecting transit patronage and to formulate train schedules based on the analyses. A computer will initiate makeup and dispatching of trains. Once a train enters the control system, it will be regulated by track-side and station control equipment which will control speed, halt a train at a specified point on the station platform and cause it to leave the station after a specified interval.

A train identification system will be used. Each train will "notify" track-side equipment of all details pertaining to that train. Track-side equipment will then route the train and advise passengers at each station along the routing of the approach of the train.

In case of delays, computer equipment will automatically reschedule trains to minimize effects of the delay. Trains ahead of the delayed train will remain at stations slightly longer than under normal schedule to receive additional passengers and prevent accumulation of a large number of riders at any one station.

An automatic block signal system will be provided which will override all automatic controls in case of serious trouble on the system.

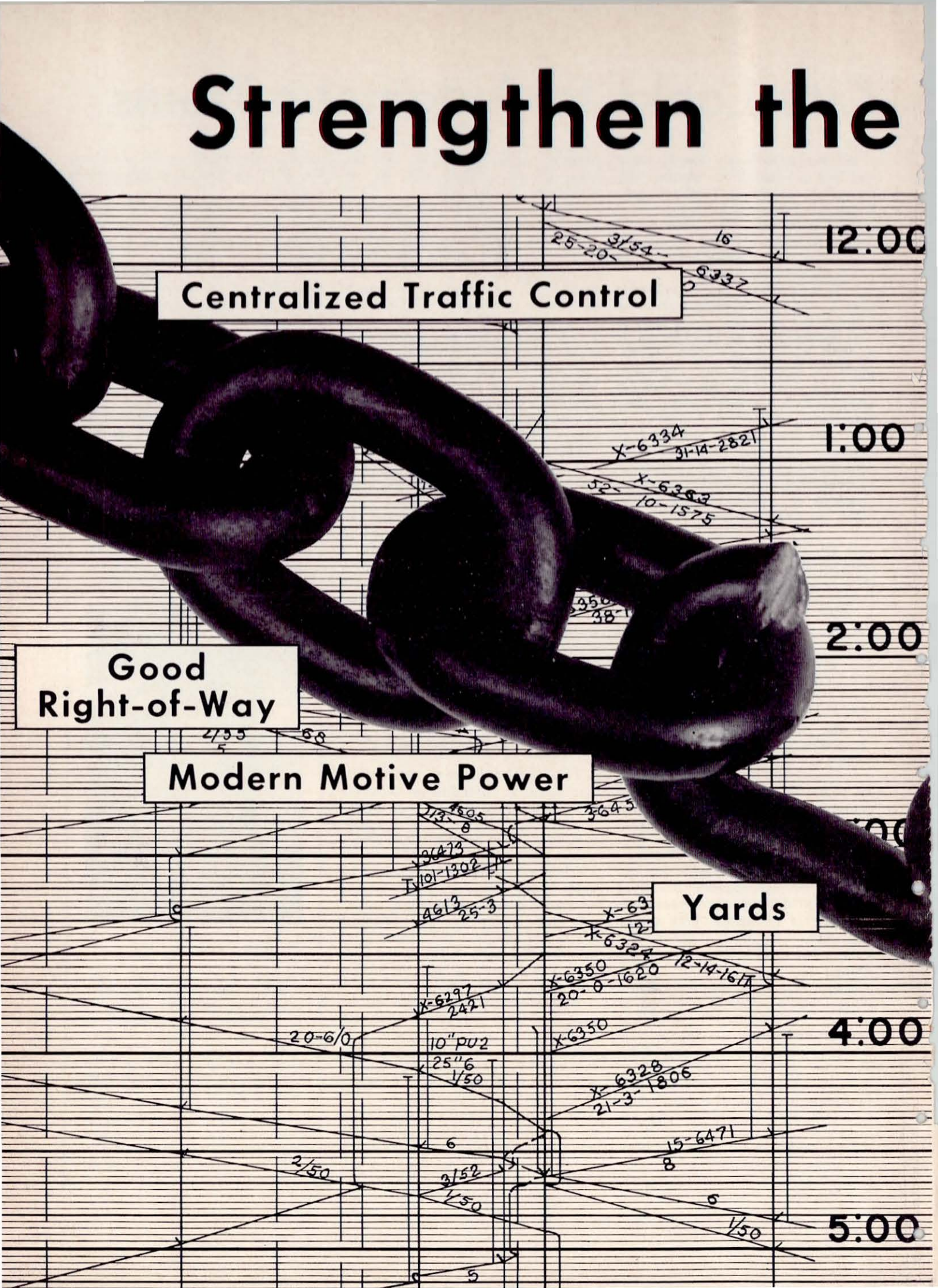
Plans don't call for unmanned operation, although the system will feature virtually complete automatic running. It's likely that BARTD trains will have a man in the cab—mostly for psychological reasons. He'll have manual override in case of emergency, but will have little strenuous work to do in normal operations.

Among prospective suppliers who have received control specs are Westinghouse Air Brake; General Railway Signal; Allis-Chalmers; Stromberg-Carlson; Minneapolis Honeywell Regulator; Daystrom; International Business Machines; Westinghouse Electric; and General Electric.

Grand Central City

Commuters into New York City's Grand Central Terminal will have grandstand seats this spring for a construction "spectacular" as work begins on the 57-story Grand Central City. The octagonal structure, which will be the world's largest commercial office building, will be supported on stilts over the tracks and platforms of Grand Central. Construction engineers have timetabled the work to permit its being carried on without interrupting or delaying any train movements.

Strengthen the

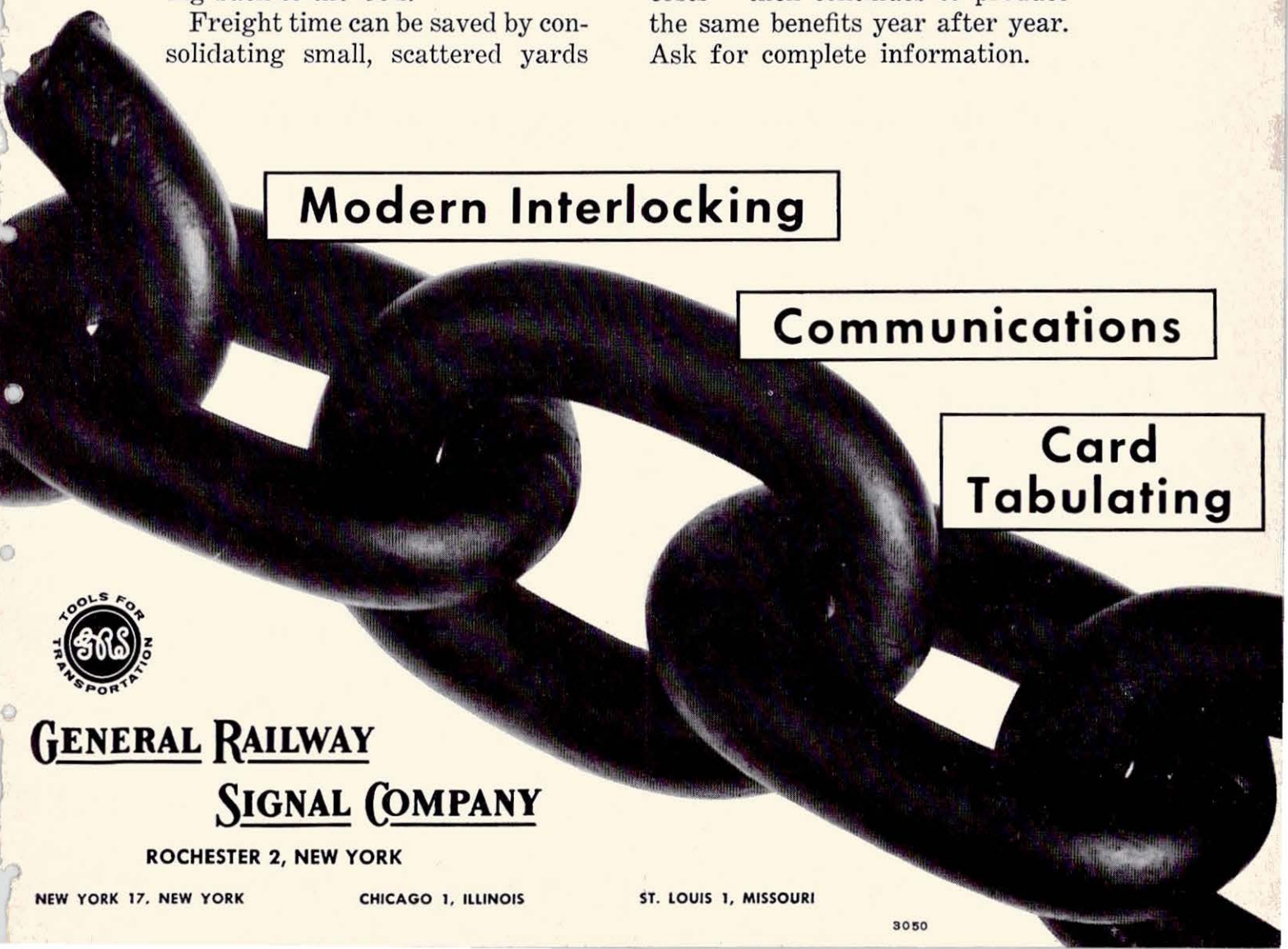


WEAK LINK in freight service

The great need today is to develop and retain freight traffic by **improved service to shippers** — by decreasing transit time, loss and damage.

Your chain of efficient operation may include the most up-to-date signaling, full dieselization, etc. and yet be greatly hampered by obsolete yard practices—perhaps dating back to the '90's.

Freight time can be saved by consolidating small, scattered yards into one or two large yards—made superefficient by GRS Class-Matic yard automation. Cars will be classified and on their way hours sooner, at less cost per car, and with fewer men. Your customers get better service. You improve your competitive position. Moreover, a GRS automatic yard pays for itself in a few years through lower operating costs — then continues to produce the same benefits year after year. Ask for complete information.



TOOLS FOR TRANSPORTATION

GENERAL RAILWAY SIGNAL COMPANY

ROCHESTER 2, NEW YORK

NEW YORK 17, NEW YORK CHICAGO 1, ILLINOIS ST. LOUIS 1, MISSOURI

3050

'Q' Adds to Dispatcher Radio

► **The Story at a Glance: The CB&Q has found radio to be a valuable aid in train and yard operation. Dispatcher control of wayside radio stations has been added, providing greater flexibility of communications and further improving train operations. Two such control systems covering 549 miles are already in service, and work is progressing on additions. Dispatchers can remotely control wayside radio stations, enabling them to talk directly to crews of moving freight trains.**

The Burlington has radio equipped 186 freight locomotives—including GP types—110 switch engines and 60 steel cabooses with 30-watt sets. An additional 325 cabooses are equipped with racks and antennas. In the rack may be mounted any of 150 walkie-talkies, which are regularly carried on the cabooses and used in freight-train service. In additional to the dispatcher control radio systems, local control radio base stations are at 16 locations. Seven radio maintenance shops are strategically located along the road.

Work is progressing on additions to the Chicago, Burlington & Quincy's two dispatcher-to-train radio systems.

One system now covers 437 miles of road between Aurora, Ill., and Pacific Junction, Iowa, on the Chicago-Denver mainline. This system enables dispatchers at Aurora, Galesburg, Ill., and Ottumwa, Iowa, to talk via 18 wayside radio stations to crews on moving trains.

A second dispatcher radio system, between Lincoln and Cairo, Neb., covers 112 miles of road. The dispatcher at Lincoln has remote control of five wayside radio stations and local control of the Lincoln station. This second radio system is on the Burlington Lines from Lincoln running northwest to Alliance.

A new dispatcher radio system is being installed on 107 miles between Aurora and Savanna, Ill., part of the Chicago-St. Paul line. Twelve wayside stations are to be added between Pacific Junction and Denver, providing continous train-to-wayside and dispatcher control radio in the territory. This will provide dispatcher control radio systems between Aurora and Denver, about 1,000 miles. In addition, a similar installation will be completed from Galesburg to Quincy, Ill.

The Burlington's experience shows the many advantages of dispatcher radio systems. First, let's look at the Aurora-Galesburg territory and see what radio has done for the CB&Q's operations over this 124 miles of double track. Operation here may be considered typical of that over the entire dispatcher controlled system between Aurora and Pacific Junction.

Between Aurora and Galesburg, interlockings are spaced approximately 10 miles apart. At most locations there are double crossovers. Traffic locking is in service between all interlockings. Train movements are governed by signal indications, both with and against the current of traffic, without use of train orders.

The dispatcher at Aurora has control over trains as far as Galesburg. Scheduled traffic is 18 passenger trains daily, nine in each direction. Of the 15 daily freight trains in each direction, four work at stations along this line. Eleven time freights operate westbound. Eleven freights eastbound are perishable trains and time freights. These 22 daily trains make no stops between Aurora and Galesburg. In addition, a tri-weekly local, up one day and back the next, operates from Eola (the yard east of Aurora), to Earlville, 34 miles. Another tri-weekly freight operates from Galesburg east to Mendota, approximately 79 miles.

The dispatcher may call the wayside operator and request him to talk to trains to ascertain their locations, or he may have the wayside operator press the "dispatch button" on the wayside control unit, which enables the dispatcher to directly control the radio station. At the Somonauk interlocking the operator also acts as agent and often goes to the depot to work with local trains. When he does, he puts the radio on dispatcher control.

In addition to using the radio to determine train locations, the dispatcher uses radio to inform train crews of moves he is planning. As one Burlington man remarked, "When everyone knows what is going on you get a better operation."

Hotbox Setout Time Is Cut

A typical move in this area is for a freight train to depart five to ten minutes before a passenger train departs from either Aurora or Galesburg. As the passenger train catches up to the freight, the dispatcher has the appropriate interlocking operators reverse crossovers and traffic, enabling the passenger train to run around the freight. When the dispatcher is to execute such a move, he not only informs the interlocking operators, but radios the train crew to tell them of the move.

Crews regularly radio in to the dispatchers, telling them of any delays. This has helped dispatchers run trains around the one delayed. The Burlington, by using radio, has reduced by 70% the time required to set out a hotbox. The road now has a rule of thumb that says if the hotbox is 90 cars back of the engine it can be set out in 15 minutes by radio, whereas without radio it would take 45 minutes. The various interlocking towers along the line make it standard practice now to radio trains after they are inspected. Station agents at five towns have walkie-talkies which they use to talk with train crews after they have inspected passing trains.

Conductors Save Time

Radio has been helpful on the tri-weekly local and on the four freight trains in each direction which do work along this route. Where a wayside radio station is installed, the conductors save time by calling ahead to determine what work they have to do. Where no radio is in service, the agent often telephones the dispatcher to tell him what work is to be done. The dispatcher radios the information to the train crew. The Aurora dispatcher also gets a consist list of cars to set out and pick up. He often uses this list when telling crews what work is to be done.

Interlocking operators have found the intercom feature of the radio system helpful in providing them with a quick-call or intercom to each other and the dispatcher, particularly when OSing trains. By pressing the intercom button on his radio control unit, the interlocking operator is connected to the dispatcher's line and it is only necessary to step on his footswitch and talk into the microphone. Many operators find this quicker than to code ring on the block line.

The radio system also has reduced the number of stops made by freight trains at home signals at these interlockings. Because everyone is informed by radio about a diverging or a run-around move, a following train can be told to "lay back."

At Mendota, Ill., the Illinois Central crosses the Burlington mainline. The crossing is protected by a mechanical interlocking. If the operator has an IC train on the approach or passing over the crossing, and a Burlington train is nearby, the towerman radios the Burlington man to lay back. The Burlington train will slow up enough so the IC train will clear the crossing and the towerman will be able to clear the home signal so the Burlington freight train

will pass through without stopping.

The Burlington has found that radio is a valuable aid to the dispatcher in planning train movements, not only in automatic block signal territory and territory where train movements are directed by signal indications, but also where centralized traffic control is in operation. Although the locations of trains are indicated by occupancy lamps on CTC track diagram panels, the lamps do not tell the dispatcher why a train is delayed. It is a help to the dispatcher, when an indication lamp is lighted longer than normal, to be able to radio the train crew and learn the reason for the delay.

The dispatcher at Cicero, Ill., who controls from Union Avenue (just out of Chicago Union Station), 30 miles west to Aurora, has control of the Cicero yard base station. As the end-to-end and train-to-wayside frequency on the Burlington is the same as the yard frequency at Cicero, he hears the radio calls from yard engines and freight trains in this vicinity and knows when they want to cross the mainline. They can also use the radio to tell him of their moves, so that he can aline switches and clear signals. The Burlington finds there are advantages in having the yard, end-to-end, and train-to-wayside conversations on the same frequency. In some instances the yard base station antenna is mounted at a relatively low elevation to give only a short radius of coverage, reducing interference with end-to-end radio. Hump engines at Galesburg and Cicero, Ill., and Lincoln, Neb., are on a second frequency.

The Lincoln-Ravenna territory is single track with automatic block signaling and hand-throw switches at sidings. Train movements are directed by timetables and train orders. Of the five wayside stations in this area, which may be controlled by the Lincoln dispatcher, two are open. The other three stations are open part time only.

Four Trains, Plus Extras

Daily traffic consists of two passenger trains and two freights, with extras as required. Schedules are arranged so no station need be open on the first trick. This makes it difficult for the Lincoln dispatcher to plan meets. Often train orders must be good for the entire 112-miles stretch from Lincoln to Ravenna.

Radio is a big help to this dispatcher. He can contact the other trains prior to issuing an order, so that the order will cause few delays. He also can instruct the two local freight crews about work to be performed. If any train is delayed, he will be notified quickly. Radio also assists train crews to get trains into and out of sidings.

If the CTC code lines should fail, the Burlington uses wayside radio stations to establish point-to-point communications. There are 50 fixed antennas strategically located at stations in CTC territory, using 30-watt transmitter-receivers that can be "plugged in" to these antennas. Each antenna is mounted on a high wood pole adjacent to the depot, with the lead brought into a plug at the operator's desk.

These temporary radio stations are set up at each end of the CTC territory affected by the code line failure and at as many intermediate points as necessary to provide solid communication throughout the territory.

In addition to the necessary instructions which are carried out when the code line and communication fails, the Burlington has a "practice alert" about once every six months to train everyone what to do if the communications should fail. Only the chief dispatcher and one or two others know the date and time of the alert. When the time arrives, the chief starts the "ball rolling" on these emergency instructions. Each man acts as though trains were not running, and maintainers, signal and operating officers are notified of a simulated failure. Emergency radio stations are set up and put into operation.

When the dispatcher control radio system is extended into those areas where CTC is now in service, the emergency radio equipment will probably not be needed, as the train-to-wayside radio and dispatcher control system provides solid radio coverage in the territory.

Railroading After Hours with Jim Lyne

WHY RAIL TRAVEL IS TAXED—I see where the Chicago Daily News quotes Budget Director M. H. Stans as justifying proposed tax increases because they fall on people who get 'special benefits' such as (and I quote) "letterwriters, highway users and air and rail passengers."

The statement is 75% correct—users of the mails, highway users and air passengers are getting benefits from the treasury that they ought to pay for. But, in the name of common sense, who's kidded the Budget Director into believing that the rail passenger gets anything from Uncle Sam except oppression and discrimination?

EMPLOYEES UNDER NATIONALIZATION—The Baltimore Sun recently had a report from Britain, from a titled correspondent, Lord Winster, in which he took a dim view of the effect of nationalization on that country's railways—and especially on the welfare of employees.

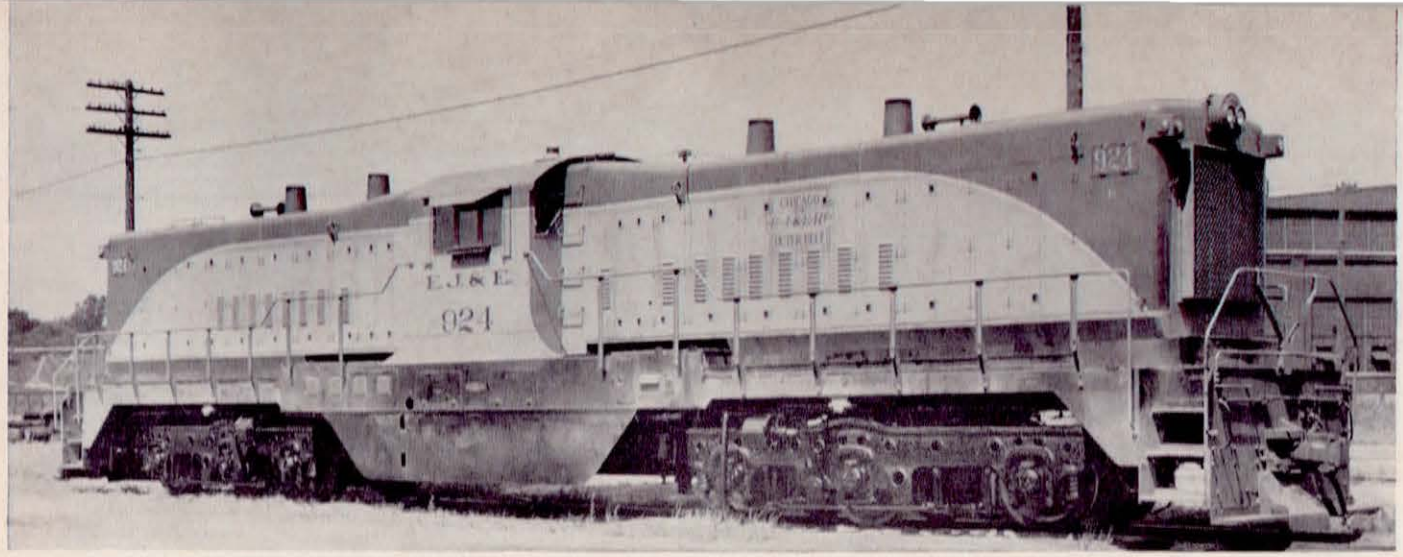
Rates of pay—the noble lord asserts—are at least one-sixth lower than those paid for comparable work in privately operated industries; and the reason they are not higher is that the railways are in the red.

Lord Winster doubts that the railways can be made to pay but, since the government has assumed responsibility by taking them over, it should "subsidize them to a point that enables them to modernize, to charge economic rates and to pay their work people comparable wages with other industries."

Nationalization is what usually happens to privately owned railroads which are starved out by people and their governments. But experience doesn't show that nationalization solves any problems—it merely makes sure that they'll remain chronic.

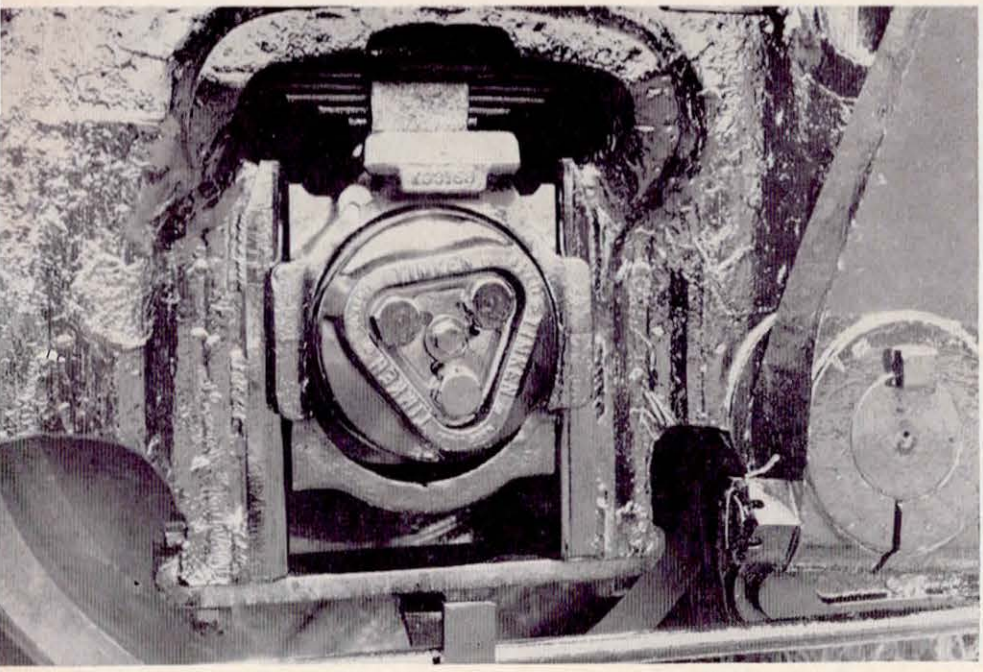
TRAIN ORDER OF 1867—NYC Yardmaster James P. Madigan has sent me an LS&MS train order (or something of the kind), dated January 11, 1867, at Elmore, Ohio. It reads: *To* HWS 3 *I understand I am to run to* Millbury to meet No 1 and Ex *Is this right? Signed* W. Hoyt *Conductor."*

The italicized words are in print in the order, the other words being penned in. From the printed words, the obvious conclusion is that this was a standard form used repeatedly. Just how Conductor Hoyt got this "understanding" of the meeting point isn't clear—nor in what form he received corroboration. Does anybody have any suggestions?

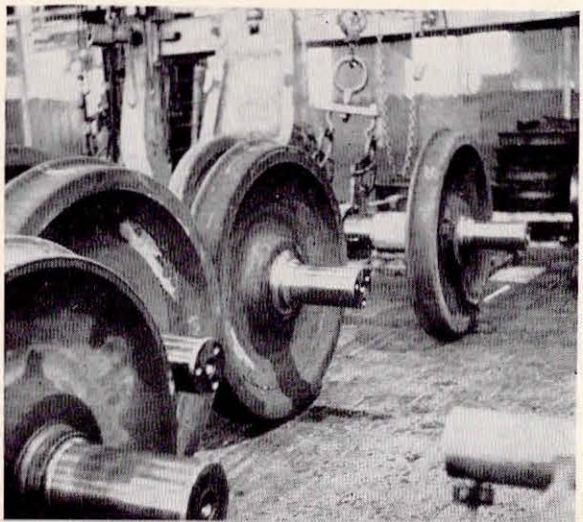


CENTER-CAB, 2,000-hp Baldwin switchers, heaviest power on the "J," are being fitted with roller bearings.

Switchers Get Roller Bearings



ROLLER BEARINGS of the AP type, normally applied to freight cars, have been installed on the EJ&E road switchers. Road found it necessary to design special adapter which includes pockets for ends of equalizers of the six-wheel trucks.



WHEEL SETS, some of them no longer suitable for service with solid bearings, were prepared for application with the roller bearings at the wheel shop of the EJ&E at Joliet, Ill.

Part of the Elgin, Joliet & Eastern's Baldwin 2,000-hp road switcher fleet and one EMD 1,000-hp switcher are now rolling on Timken bearings.

The J's officers say: "Twenty months of trouble-free performance on the Baldwin equipment has sold us. Elimination of lubrication and maintenance costs to date has made the conversions particularly attractive."

Application of bearings to the six-wheel Baldwin trucks started in April 1958. The first set of EMD four-wheel trucks was changed over in February 1959. Its service record parallels that of the Baldwins.

Expense of the roller-bearing conversion is kept low. Many axles that otherwise would have been scrapped due to wear were salvaged by machining for the roller-bearing assemblies. A considerable number of the road's 132 units are scheduled for future applications as the trucks come in for normal overhaul.

Before roller bearings, daily inspection and oiling of pad- or waste-equipped boxes were required. Brasses and lubricating pads were removed and inspected once a year, with approximately 50% of the brasses being renewed at this inspection. Hotboxes and scored journals caused delays and were costly.

One change is made in the standard 6½ by 12 heavy duty AP bearing. The axle end cap now takes a 1½-in., instead of a ½-in., plug. This permits use of the wheel-truing machine without removing the cap, thus protecting the bearing from damage and dirt. The cast-steel journal box adapters are designed to take either a semi-elliptic spring band or equalizers. Only one pattern is required for the EMD and Baldwin trucks.

People in the News

ATLANTIC COAST LINE—LOUISVILLE & NASHVILLE.—Charles R. Yates appointed financial representative for these roads, at New York, effective Feb. 15. After the retirement in April of **Frank D. Lemmon,** vice president—finance, ACL, and **William J. McDonald,** vice president—finance, L&N, Mr. Yates will become vice president—finance of both roads. Mr. Yates was formerly vice president in charge of southeast operations at Atlanta, Ga., of Joshua L. Baily & Company, Inc., selling agents for Textile Mills.

BURLINGTON.—L. J. Meyer, general accountant and assistant in the comptroller's office, named auditor of expenditures, to succeed **J. V. Wolfe,** promoted to assistant to the comptroller. **S. L. Griffith,** office manager to the auditor of freight accounts, named general accountant, office of the comptroller.

E. D. Harville, superintendent of terminals, Kansas City, Mo., named superintendent, Chicago division, to succeed **I. C. Ethington,** appointed assistant to the vice president-operation, Chicago. **I. W. Crist** transferred from Lincoln, Neb. to replace Mr. Harville, and in turn is succeeded by **M. L. Zadnichek,** assistant superintendent, LaCrosse (Wis.) division. **W. S. Johnston,** assistant superintendent, Sheridan, Wyo., replaces Mr. Zadnichek.

R. S. Brown, division freight agent, Rock Island, Ill., named general freight agent, St. Paul, Minn., to replace **S. L. Parker,** who retired Dec. 31, 1959. **L. H. Petrie,** division freight agent, Galesburg, Ill., named to succeed Mr. Brown, and in turn is succeeded by **J. L. Weingarten,** chief clerk to the freight traffic manager, Lines West, Omaha. **Gene A. McCann,** passenger agent, Chicago, named district passenger agent, Pittsburgh, to replace **R. F. Tompkins,** resigned.

L. E. Quirin, superintendent of shops, Aurora, Ill., appointed general superintendent of motive power and equipment, Chicago. **L. G. Harville,** master mechanic, Hannibal (Mo.) division, succeeds Mr. Quirin, and in turn is succeeded by **H. H. Niemeyer,** general boiler inspector, Chicago.

CALIFORNIA WESTERN.—Frank H. Sturges, general superintendent, Fort Bragg, Cal., appointed general manager. **John H. Gray,** former vice president and general manager, continues as vice president.

CANADIAN NATIONAL.—Alvin F. Knauer, general agent, passenger department, Pittsburgh, transferred to St. Louis, to replace **W. E. Rudolph,** retired.

Charles L. McCoy, assistant general freight traffic manager—rates, tariffs and divisions, Montreal, retired. **Charles E. Dobson,** general freight agent, Winnipeg, appointed assistant freight traffic manager—rates, tariffs and divisions, Montreal.

Sidney C. Welby, general fuel agent, Montreal, retired.

CHESAPEAKE & OHIO.—W. H. Ragland, assistant trainmaster, Flint, Mich., promoted to trainmaster there.

CHICAGO, WEST PULLMAN & SOUTHERN.—Edmund M. Mauge appointed vice president and superintendent, to succeed **Frank J. Ryan,** retired.

DELAWARE & HUDSON.—Joseph H. Nuelle, chairman of the board, and **Herbert M. Irwin,** vice president, New York, retired Dec. 31, 1959.

DETROIT, TOLEDO & IRONTON.—E. H. McCauley, vice president—accounting, Dearborn, Mich., retired Jan. 1. **J. W. Donahue,** comptroller, assumes jurisdiction over the accounting department. **R. Guregian** named assistant general auditor, succeeding **R. C. Courtney,** promoted to general auditor. **Calvin E. Donahue** named auditor of disbursements, a newly created position.

DONORA SOUTHERN.—Robert A. McWilliams appointed superintendent motive power and equipment, Donora, Pa., succeeding **Ivan S. Gibb,** named superintendent motive power of the **Lake Terminal** at Lorain, Ohio.

ELGIN, JOLIET & EASTERN.—Paul B. Higdon, assistant secretary and assistant treasurer, elected secretary and treasurer, succeeding **William P. Braker,** who retired Dec. 31, 1959.

FRISCO.—John J. Ratcliff, assistant director of labor relations, St. Louis, appointed director of labor relations.

R. L. Akins appointed trainmaster, Central division, Hugo, Okla.; **G. M. Kirk,** terminal trainmaster, Tulsa, Okla.; **H. A. Linderer,** superintendent terminals, Springfield, Mo. **C. C. Lane** and **D. W. Patton** named assistant superintendents, Oklahoma City, Okla., and Sherman, Tex., respectively. **R. C. Grayson** appointed manager motor transportation and TOFC service, and **A. R. Lindeman** named assistant manager motor transportation and TOFC service. Messrs. Grayson and Lindeman will continue as vice president and general manager and assistant general manager, respectively, of Frisco Transportation Co. **T. M. Galloway** appointed assistant superintendent, Fort Scott, Kan.

GEORGIA & FLORIDA.—J. P. Belvin, chief operating officer, Augusta, Ga., appointed chief executive officer and his former position abolished.

GREAT NORTHERN.—Samuel M. Farrell, assistant passenger traffic manager, St. Paul, retired Dec. 31, 1959. **R. W. Morrison** appointed general agent, Toronto, succeeding **G. F. Smith,** retired.

Charles L. Hand, traveling freight agent, Chicago, appointed general agent, Kansas City, Mo., succeeding **C. C. Thompson,** retired. **Robert F. Anderson,** traveling freight agent, San Francisco, named general agent, Oakland, Cal., succeeding the late **A. F. Nikolai.**

D. E. Whitney, assistant general air brake supervisor, St. Paul, Minn., named general air brake supervisor there, succeeding **L. A. Stanton,** retired.

E. W. Bergstrom, assistant general freight traffic manager (rates and divisions), St. Paul, Minn., has assumed the duties of the late **Oscar M. Anderson,** assistant general freight traffic manager (rates and divisions), (RA, Dec. 14, 1959, p. 40). **J. F. Fallon** appointed freight traffic manager (rates and divisions); **J. E. Casey,** assistant general freight agent (rates and divisions); **C. E. Dahlberg,** assistant to general freight traffic manager, all at St. Paul.

J. J. Woulfe, assistant freight traffic manager, San Francisco, retired. **W. E. Nicholson,** freight traffic manager, sales and service, St. Paul, transferred to San Francisco to succeed Mr. Woulfe.

GULF, MOBILE & OHIO.—Gerald C. Stuckey appointed division freight traffic manager,

Charles R. Yates
ACL-L&N

Paul B. Higdon
EJ&E

Frederick J. Orner
New Haven

Joseph B. Dowling
New Haven

Walter N. Johnson
REA

Fred V. Kraft
REA

Springfield, Ill., succeeding **Emil H. Yarke,** retired. **J. P. Birmingham** appointed district freight and passenger agent, Los Angeles, Cal., succeeding **George T. Buckley,** retired.

ILLINOIS CENTRAL.—Gerald V. West appointed district passenger agent, Birmingham, Ala., succeeding **F. Sterling Vance,** who retired Dec. 31, 1959.

Isaac G. Forbes, assistant engineer of buildings, Chicago, appointed engineer of buildings there, to succeed **James B. Schaub,** who retired Dec. 31, 1959.

JERSEY CENTRAL.—James L. Daly, assistant district attorney for New York county for the past 17 years, has joined the Jersey Central as an attorney at New York.

KENTUCKY & INDIANA TERMINAL.—F. J. Flispart, secretary and auditor, retired Dec. 31, 1959. **Harold R. Wade** appointed auditor and acting secretary. **Joseph J. Gaynor,** industrial representative, **Baltimore & Ohio,** named general industrial agent of the K&IT.

LACKAWANNA.—W. J. Stumpf, assistant freight traffic manager, New York, promoted to freight traffic manager—rates and divisions, succeeding **J. S. Sikora,** retired. **M. A. Ehlers,** general freight agent, New

(Continued on page 28)

Freight Operating Statistics of Large Railroads—Selected Items

Region, Road and Year	Miles of road operated	Train miles	Locomotive Miles: Principal and helper	Locomotive Miles: Light	Car Miles: Loaded (thousands)	Car Miles: Per cent loaded	Ton-miles (thousands): Gross excl. locos & tenders	Ton-miles (thousands): Net rev. and non-rev	Road-locos. on lines: Serviceable: Unstored	Road-locos. on lines: Serviceable: Stored	Road-locos. on lines: B.O.	Road-locos. on lines: Per cent B.O.
New Eng. Region												
Boston & Maine 1959	1,559	201,966	202,806	3,158	7,255	63.7	502,957	210,971	76	7	27	24.5
1958	1,559	199,500	200,020	3,762	7,500	62.6	518,751	213,299	59	21	13	14.0
N. Y., N. H. & Hartfd 1959	1,739	229,969	229,969	13,543	8,786	66.2	564,979	232,937	61	..	13	17.6
1958	1,739	237,292	237,320	14,170	9,712	65.3	637,315	267,425	76	3	12	13.2
Great Lakes Region												
Delaware & Hudson 1959	764	134,832	136,127	1,295	6,986	65.4	493,897	248,530	28	7	4	10.3
1958	764	150,375	152,202	2,233	7,422	63.9	536,135	270,790	37	3	2	4.8
Del., Lack. & Western 1959	941	206,867	210,662	9,723	8,854	64.5	613,299	252,644	53	2	7	11.3
1958	922	224,205	229,023	8,764	9,704	66.0	652,693	275,909	57	..	7	10.9
Erie 1959	2,233	475,549	477,583	9,919	26,367	69.8	1,611,327	618,299	167	6	3	1.7
1958	2,207	477,686	479,902	9,448	27,096	68.4	1,674,535	666,459	164	7	2	1.2
Grand Trunk Western 1959	951	187,505	187,596	1,083	6,097	60.8	429,353	170,842	44	6	26	34.2
1958	951	181,836	182,664	1,129	6,110	61.6	431,478	177,032	42	12	16	22.9
Lehigh Valley 1959	1,114	179,019	181,742	4,413	7,998	65.5	543,787	244,934	27	..	7	20.6
1958	1,118	185,995	189,108	3,397	8,511	64.8	589,122	267,446	27	..	7	20.6
New York Central 1959	10,333	1,664,297	1,671,585	79,711	73,521	60.2	5,533,229	2,320,079	416	5	67	13.7
1958	10,470	1,849,722	1,862,292	93,178	76,698	59.0	5,688,111	2,537,538	436	10	36	7.5
New York, Chic. & St. L. 1959	2,155	484,758	484,758	3,683	22,561	64.7	1,568,205	666,646	100	31	8	5.8
1958	2,155	526,501	526,501	4,041	24,654	65.4	1,742,812	776,293	100	31	5	3.7
Pitts. & Lake Erie 1959	221	19,995	19,995	....	882	55.5	84,094	45,202	8	11	5	20.8
1958	221	53,138	53,138	....	1,961	59.2	186,422	113,495	13	1	2	12.5
Wabash 1959	2,379	378,164	378,457	3,687	18,951	66.0	1,272,081	516,647	114	..	3	2.6
1958	2,379	422,704	422,704	3,457	18,568	67.1	1,247,805	519,358	114	..	..	..
Central Eastern Region												
Baltimore & Ohio 1959	5,802	1,160,059	1,237,112	82,114	47,640	61.7	3,911,145	1,862,265	365	40	49	10.8
1958	5,830	1,218,843	1,304,055	81,399	57,113	62.6	4,320,540	2,093,411	422	92	16	3.0
Bessemer & Lake Erie 1959	203	19,366	19,597	2	344	57.1	33,649	18,141	9	6	..	..
1958	203	54,284	53,986	94	2,478	62.2	298,232	197,271	11	..	3	21.4
Central RR Co. of New Jersey 1959	597	104,332	105,592	5,387	3,925	65.0	301,080	159,493	69	2	2	2.7
1958	600	104,748	105,960	5,224	4,026	64.4	309,374	162,669	54	..	16	22.9
Chicago & Eastern Ill. 1959	863	95,463	95,463	2,105	4,853	63.2	392,112	204,963	24	..	6	20.0
1958	863	120,033	120,033	2,974	5,351	62.8	418,433	211,258	26	..	5	16.1
Elgin, Joliet & Eastern 1959	205	30,628	31,470	....	1,115	64.5	87,687	47,280	30	13	1	2.3
1958	236	56,030	58,560	....	2,004	63.0	163,761	89,365	34	10	..	..
Pennsylvania System 1959	9,865	2,180,093	2,273,339	142,250	97,490	64.4	6,953,270	3,110,124	637	34	66	9.0
1958	9,893	2,452,689	2,576,693	167,743	106,533	63.5	7,971,451	3,769,736	680	70	117	13.5
Reading 1959	1,302	237,847	238,436	8,252	9,238	59.0	786,902	406,645	119	9	29	18.5
1958	1,302	264,398	265,650	9,193	10,226	58.8	866,595	456,851	137	12	46	23.6
Western Maryland 1959	844	98,832	100,616	3,951	3,682	57.9	322,220	166,108	30	3	1	2.9
1958	844	138,288	143,562	8,043	5,500	61.0	491,768	280,928	40	4	1	2.2
Pocahontas Region												
Chesapeake & Ohio 1959	5,060	1,032,819	1,035,062	18,344	48,696	55.9	4,296,910	2,378,259	565	20	50	7.9
1958	5,066	1,198,541	1,202,527	22,534	58,156	55.6	5,236,289	2,928,275	592	3	17	2.8
Norfolk & Western 1959	2,116	510,441	529,283	29,174	27,220	57.3	2,598,830	1,420,885	143	20	13	7.4
1958	2,116	601,548	637,194	42,462	31,386	55.6	3,054,570	1,667,520	195	15	8	3.7
Rich., Fred. & Potomac. 1959	110	30,287	30,287	501	1,992	68.1	130,624	55,155	13	2	..	..
1958	110	29,927	29,927	621	2,006	64.5	134,094	53,949	11	4	..	..
Virginian 1959	608	117,846	119,721	2,804	5,821	53.5	559,653	313,902	54	15	13	15.9
1958	608	129,957	131,952	3,077	6,596	54.3	636,787	358,250	50	15	12	15.6
Southern Region												
Atlantic Coast Line 1959	5,290	596,301	596,301	5,903	22,172	60.0	1,702,151	797,160	109	7	2	1.7
1958	5,296	573,119	573,119	5,950	21,503	58.4	1,668,515	763,503	105	20	2	1.6
Central of Georgia 1959	1,712	185,215	185,215	1,988	,7278	63.9	553,053	269,561	33	..	2	5.7
1958	1,730	184,939	184,939	2,570	7,275	64.8	559,312	267,485	33	..	2	5.7
Florida East Coast 1959	572	78,263	78,263	....	2,629	53.4	213,034	79,094	46	..	9	16.4
1958	571	88,619	88,619	....	3,008	53.8	238,070	92,285	51	..	4	7.3
Gulf, Mobile & Ohio 1959	2,717	261,163	261,163	74	14,817	68.7	1,033,570	503,444	86	..	5	5.5
1958	2,717	254,341	254,341	118	13,993	67.2	977,573	468,890	87	..	4	4.4
Illinois Central 1959	6,500	961,146	961,146	25,799	44,615	62.6	3,284,793	1,544,700	182	11	179	48.1
1958	6,497	982,924	982,924	26,883	44,070	62.1	3,259,775	1,528,546	211	54	121	31.3
Louisville & Nashville 1959	5,679	844,621	845,381	13,983	32,870	61.6	2,565,182	1,274,909	172	..	4	2.3
1958	5,680	857,826	858,852	16,056	35,154	60.7	2,755,805	1,380,188	158	..	2	1.3
Seaboard Air Line 1959	4,135	560,154	560,154	2,284	22,225	60.0	1,752,555	823,752	128	..	4	3.0
1958	4,135	577,812	577,812	1,188	21,124	58.9	1,650,410	752,497	145	..	7	4.6
Southern 1959	6,243	835,132	835,322	8,723	38,509	65.3	2,650,429	1,245,626	198	1	5	2.5
1958	6,249	826,656	826,882	8,834	37,737	65.5	2,599,300	1,225,739	175	1	19	9.7
Northwestern Region												
Chicago & North Western 1959	9,245	850,486	850,486	8,673	31,591	61.9	2,295,323	997,623	161	7	17	9.2
1958	9,254	854,386	854,386	10,335	33,645	62.4	2,456,043	1,009,350	168	..	10	5.6
Chicago Great Western 1959	1,437	131,862	131,862	216	6,691	66.7	476,416	225,897	24	..	3	11.1
1958	1,437	128,864	128,864	161	7,249	66.7	505,075	233,878	25	..	1	3.8
Chic., Milw., St. P. & Pac. 1959	10,591	851,053	860,237	12,606	41,262	64.5	2,828,095	1,230,077	320	13	9	2.6
1958	10,583	899,400	913,740	13,262	43,956	64.9	3,019,233	1,366,704	287	7	9	3.0
Duluth, Missabe & Iron Range. 1959	556	22,566	22,593	185	399	50.3	38,377	19,362	49	26	3	3.8
1958	554	97,974	98,170	502	5,323	51.5	588,984	374,193	66	29	6	5.9
Great Northern 1959	8,279	942,959	946,992	21,177	41,194	65.5	2,980,933	1,380,014	273	7	7	2.4
1958	8,281	1,019,835	1,026,251	25,801	46,772	62.7	3,526,316	1,676,431	265	..	12	4.3
Minneap., St. P. & S. St. Marie 1959	4,169	348,729	349,669	698	12,645	68.7	856,734	400,193	85	8	7	7.0
1958	4,169	377,046	379,315	3,125	14,153	66.1	979,330	461,421	84	8	3	3.2
Northern Pacific 1959	6,538	808,848	816,196	10,040	34,229	63.2	2,384,808	1,033,709	241	..	3	1.2
1958	6,533	825,568	835,262	11,331	36,808	61.8	2,619,835	1,135,489	233	4	7	2.9
Spokane, Portland & Seattle 1959	935	140,462	140,462	1,229	6,237	71.8	419,893	198,246	54	..	1	1.8
1958	935	145,770	145,770	1,330	6,890	75.1	458,565	224,825	57	..	1	1.7
Central Western Region												
Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.) 1959	12,993	2,428,181	2,654,896	50,895	102,239	64.9	7,121,675	2,783,117	635	..	38	5.6
1958	13,086	2,190,913	2,404,971	67,365	106,444	65.6	7,303,298	2,882,015	563	6	115	16.8
Chic., Burl. & Quincy 1959	8,647	1,085,679	1,082,611	24,052	47,895	65.2	3,193,378	1,345,697	144	8	73	32.4
1958	8,675	1,074,515	1,070,683	24,679	50,357	66.4	3,309,814	1,418,985	146	11	69	30.5
Chic., Rock I. & Pac. 1959	7,508	865,484	866,825	1,852	34,977	64.7	2,477,792	1,070,233	186	..	9	4.6
1958	7,561	855,498	853,790	2,401	34,283	64.2	2,461,062	1,081,539	175	..	10	5.4
Denver & R. G. Wn. 1959	2,128	265,709	283,208	25,281	13,471	74.4	870,918	400,352	77	6	7	7.8
1958	2,155	334,183	356,206	39,547	16,927	74.5	1,104,470	529,662	84	6	4	4.3
Southern Pacific 1959	8,011	2,125,438	2,208,634	129,045	97,822	66.0	6,710,161	2,786,053	713	1	49	6.4
1958	8,025	2,093,960	2,192,713	128,219	98,905	64.3	6,824,250	2,759,527	646	3	56	7.9
Union Pacific 1959	9,743	2,154,126	2,173,966	52,936	105,416	65.7	6,818,931	2,686,342	358	24	97	20.3
1958	9,748	2,336,139	2,377,361	67,354	114,746	65.2	7,594,245	3,082,812	382	25	97	19.2
Western Pacific 1959	1,188	260,417	266,477	15,388	11,118	73.5	691,304	304,295	44	..	2	4.3
1958	1,189	252,263	259,919	17,134	12,178	72.2	768,300	340,684	46	..	1	2.1
Southwestern Region												
Kansas City Southern 1959	886	116,363	116,363	154	7,521	66.1	552,791	253,490	22	..	2	8.3
1958	886	111,285	111,285	159	7,300	68.6	520,461	240,625	23	..	1	4.2
Louisiana & Arkansas 1959	746	75,834	75,834	....	3,597	63.2	284,343	134,031	19	..	..	..
1958	746	68,539	68,539	....	3,685	64.0	286,987	134,751	18	..	..	..
Mo.-Kans.-Texas Lines 1959	2,916	191,083	191,083	1,887	9,398	62.9	692,762	306,633	58	..	2	3.3
1948	2,915	219,054	219,054	1,908	10,674	65.4	708,432	312,095	75	..	3	3.8
Missouri Pacific 1959	9,419	1,066,709	1,066,709	8,086	50,285	65.0	3,595,228	1,651,775	214	7	18	7.5
1958	9,515	1,029,926	1,029,926	7,921	49,742	66.0	3,514,508	1,645,817	197	25	18	7.5
St. Louis-San Francisco 1959	4,527	576,945	576,945	6,138	23,788	68.3	1,584,421	731,053	99	..	12	10.8
1958	4,541	540,349	540,349	5,119	23,317	68.1	1,568,027	729,339	93	5	12	10.9
St. Louis Southw. Lines 1959	1,554	315,222	315,222	3,998	13,540	74.3	833,369	372,528	51	..	1	1.9
1958	1,554	289,639	289,705	1,509	13,672	76.0	830,322	371,165	51	..	1	1.9
Texas & New Orleans 1959	4,148	601,069	601,069	633	27,277	68.2	1,881,108	888,112	138	..	3	2.1
1958	4,206	583,476	583,476	650	25,971	65.5	1,808,403	825,017	137	..	2	1.4
Texas & Pacific 1959	1,822	282,594	282,594	2,621	12,074	65.1	861,743	340,838	37	..	3	7.5
1958	1,822	236,318	236,318	2,104	11,987	66.6	832,089	337,671	38	..	1	2.6

For the Month of September 1959 Compared with September 1958

Region	Road	Year	Freight cars on line: Home	Freight cars on line: Foreign	Freight cars on line: Total	Freight cars on line: Per Cent B.O.	G.t.m.per train-hr. exc.locos and tenders	G.t.m.per train-mi. excl.locos and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Cars-miles per car-day	Net daily ton-mi. per road-me.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine	1959	2,029	7,580	9,609	4.1	38,060	2,497	1,047	29.1	729	39.3	4,511	15.3	70.9
		1958	2,320	7,770	10,090	3.5	40,670	2,604	1,071	28.4	722	40.5	4,561	15.6	80.1
	N. Y., N. H. & Hartfd	1959	3,151	13,151	16,302	7.7	37,381	2,457	1,013	26.5	479	27.3	4,465	15.2	136.8
		1958	2,802	12,610	15,412	5.2	41,096	2,686	1,127	27.5	594	33.1	5,126	15.3	113.5
Great Lakes Region	Delaware & Hudson	1959	3,761	4,284	8,045	14.2	62,733	3,679	1,851	35.6	926	39.8	10,843	17.1	127.1
		1958	4,947	4,966	9,913	9.6	63,644	3,586	1,811	36.5	852	36.6	11,815	17.9	136.3
	Del., Lack. & Western	1959	5,959	8,038	13,997	14.1	51,172	3,004	1,237	28.2	612	33.6	8,949	17.3	132.3
		1958	6,049	8,326	14,375	8.6	51,139	2,951	1,248	28.4	637	34.0	9,975	17.6	134.7
	Erie	1959	11,782	13,340	25,122	8.3	71,002	3,416	1,311	23.4	837	51.1	9,230	21.0	102.6
		1958	10,596	14,069	24,665	6.7	70,614	3,535	1,407	24.6	893	53.1	10,066	20.1	106.2
	Grand Trunk Western	1959	5,323	7,017	12,340	6.4	51,537	2,295	913	28.0	446	26.2	5,988	22.5	95.2
		1958	5,366	7,207	12,573	6.6	50,643	2,386	979	29.0	456	25.5	6,205	21.3	95.2
	Lehigh Valley	1959	6,702	6,932	13,634	13.0	63,216	3,058	1,377	30.6	607	30.3	7,329	20.8	201.6
		1958	7,469	8,276	15,745	11.0	62,163	3,210	1,457	31.4	569	28.0	7,974	19.6	211.4
	New York Central	1959	67,984	65,719	133,703	8.8	57,650	3,356	1,407	31.6	581	30.5	7,484	17.3	142.6
		1958	69,763	68,263	138,026	9.3	53,910	3,108	1,386	33.1	590	30.2	8,079	17.5	166.1
	New York, Chic. & St. L	1959	11,500	11,220	22,720	15.8	57,629	3,274	1,392	29.5	987	51.6	10,312	17.8	132.6
		1958	11,101	11,141	22,242	14.2	59,179	3,354	1,494	31.5	1,153	56.0	12,008	17.9	146.6
	Pitts. & Lake Erie	1959	9,911	1,492	11,403	5.5	71,509	4,217	2,267	51.2	132	4.7	6,818	17.0	30.0
		1958	7,796	4,655	12,451	8.6	60,962	3,512	2,138	57.9	290	8.5	17,119	17.4	111.3
	Wabash	1959	10,074	6,641	16,715	11.8	76,191	3,375	1,371	28.3	1,035	57.5	7,239	22.6	115.2
		1958	10,662	8,751	19,413	6.6	66,137	2,963	1,233	28.0	895	47.7	7,277	22.4	130.6
Central Eastern Region	Baltimore & Ohio	1959	67,164	32,428	99,592	21.5	54,360	3,414	1,625	39.1	626	26.0	10,699	16.1	98.9
		1958	61,964	40,902	102,866	19.0	55,514	3,598	1,743	36.7	674	29.4	11,969	15.7	91.7
	Bessemer & Lake Erie	1959	8,848	977	9,461	4.5	30,927	1,876	1,011	52.7	64	2.1	2,979	17.8	52.4
		1958	3,930	1,718	5,648	9.8	97,430	5,933	3,924	79.6	1,053	21.3	32,393	17.7	136.2
	Central RR Co. of New Jersey	1959	4,114	9,470	13,584	19.0	41,620	3,001	1,590	40.6	397	15.0	8,905	14.4	76.6
		1958	3,890	9,369	13,259	16.0	43,233	3,087	1,623	40.4	417	16.0	9,037	14.6	77.4
	Chicago & Eastern Ill	1959	3,337	2,905	6,242	22.0	74,221	4,144	2,166	42.2	1,089	40.8	7,917	18.1	121.4
		1958	2,852	4,138	6,990	10.8	61,725	3,499	1,766	39.5	1,120	45.2	8,160	17.7	134.1
	Elgin, Joliet & Eastern	1959	8,669	2,730	11,399	4.5	22,154	2,947	1,589	42.4	142	5.2	7,688	7.7	31.8
		1958	7,378	6,225	13,603	5.9	23,889	3,057	1,668	44.6	224	8.0	12,622	8.2	59.6
	Pennsylvania System	1959	117,502	76,720	194,222	15.8	56,511	3,276	1,466	31.9	532	25.9	10,509	17.7	118.8
		1958	129,835	68,675	198,510	18.3	56,295	3,345	1,582	35.4	635	28.2	12,702	17.3	115.8
	Reading	1959	19,837	11,328	31,165	22.7	51,495	3,310	1,711	44.0	426	16.4	10,411	15.6	59.5
		1958	17,855	17,307	35,162	17.2	49,582	3,278	1,728	44.7	439	16.7	11,696	15.1	59.0
	Western Maryland	1959	7,934	2,012	9,946	9.0	46,991	3,300	1,701	45.1	521	19.9	6,560	14.4	116.5
		1958	7,258	2,340	9,598	4.5	52,782	3,621	2,069	51.1	926	29.7	11,095	14.8	124.5
Pocahontas Region	Chesapeake & Ohio	1959	62,441	27,258	89,699	6.9	76,235	4,182	2,315	48.8	858	31.4	15,667	18.3	60.2
		1958	61,835	29,056	90,891	4.3	80,417	4,395	2,458	50.4	1,061	37.9	19,268	18.4	72.3
	Norfolk & Western	1959	42,051	9,995	52,046	4.8	91,270	5,174	2,829	52.2	902	30.1	22,383	17.9	122.7
		1958	38,712	8,775	47,487	5.1	88,739	5,192	2,834	53.1	1,140	38.6	26,268	17.5	112.7
	Rich., Fred. & Potomac	1959	103	935	1,038	2.0	88,022	4,324	1,826	27.7	1,676	88.8	16,714	20.4	74.2
		1958	101	919	1,020	2.9	84,816	4,489	1,806	26.9	1,716	98.9	16,348	18.9	72.8
	Virginian	1959	12,844	896	13,740	2.2	73,445	4,831	2,710	53.9	739	25.6	17,210	15.5	56.5
		1958	13,300	1,033	14,333	3.3	71,767	4,994	2,810	54.3	807	27.4	19,641	14.6	64.4
Southern Region	Atlantic Coast Line	1959	18,568	17,100	35,668	4.5	48,631	2,864	1,341	36.0	750	34.7	5,023	17.0	194.6
		1958	20,590	13,087	33,677	3.5	49,842	2,920	1,336	35.5	742	35.8	4,806	17.1	176.4
	Central of Georgia	1959	3,712	5,544	9,256	4.1	52,418	2,988	1,456	37.0	972	41.1	5,248	17.6	198.2
		1958	3,769	5,345	9,114	4.3	53,202	3,028	1,448	36.8	1,016	42.7	5,154	17.6	196.9
	Florida East Coast	1959	573	2,845	3,418	.4	48,582	2,722	1,011	30.1	813	50.6	4,609	17.8	52.2
		1958	852	2,954	3,806	.6	46,662	2,695	1,045	30.7	846	51.3	5,387	17.4	61.2
	Gulf, Mobile & Ohio	1959	6,591	9,923	16,514	5.5	75,681	3,960	1,929	34.0	1,017	43.5	6,176	19.1	104.3
		1958	6,432	9,078	15,510	5.9	72,429	3,846	1,845	33.5	961	42.6	5,753	18.8	101.5
	Illinois Central	1959	24,937	27,443	52,380	4.3	60,332	3,436	1,616	34.6	1,020	47.1	7,922	17.7	97.4
		1958	26,068	24,718	50,786	4.0	56,752	3,348	1,570	34.7	1,027	47.7	7,842	17.1	97.8
	Louisville & Nashville	1959	33,968	16,347	50,315	10.9	53,555	3,050	1,516	38.8	839	35.1	7,483	17.6	184.1
		1958	33,344	16,665	50,009	8.2	52,662	3,219	1,612	39.3	891	37.4	8,100	16.4	204.5
	Seaboard Air Line	1959	16,723	13,609	30,332	3.5	58,438	3,185	1,497	37.1	915	41.2	6,641	18.7	165.7
		1958	17,293	12,921	30,214	2.7	55,185	2,909	1,326	35.6	841	40.1	6,066	19.3	149.9
	Southern	1959	20,448	28,167	48,615	4.0	56,229	3,180	1,494	32.3	858	40.6	6,651	17.7	154.2
		1958	18,388	28,606	46,994	5.1	52,351	3,157	1,489	32.5	879	41.3	6,538	16.6	154.5
Northwestern Region	Chicago & North Western	1959	21,580	27,321	48,901	5.2	49,355	2,705	1,176	31.6	682	34.9	3,597	18.3	166.9
		1958	21,255	32,132	53,387	4.6	51,985	2,883	1,185	30.0	647	34.5	3,636	18.1	176.5
	Chicago Great Western	1959	2,361	3,831	6,192	3.7	68,010	3,614	1,714	33.8	1,193	52.9	5,240	18.8	176.2
		1958	1,872	3,871	5,743	3.8	71,238	3,923	1,817	32.3	1,334	62.0	5,425	18.2	179.5
	Chic., Milw., St. P. & Pac	1959	28,619	24,672	53,291	4.1	67,313	3,332	1,449	29.8	751	39.1	3,871	20.3	90.9
		1958	32,040	27,166	59,206	4.9	64,172	3,364	1,523	31.1	762	37.8	4,305	19.1	112.0
	Duluth, Missabe & Iron Range	1959	13,791	442	14,233	1.4	30,123	1,765	891	48.5	45	1.9	1,161	17.7	11.3
		1958	13,283	933	14,216	4.9	112,145	6,453	4,100	70.3	857	23.7	22,515	18.7	39.9
	Great Northern	1959	24,985	19,205	44,190	2.8	65,330	3,187	1,475	33.5	985	44.9	5,556	20.7	121.9
		1958	21,602	26,932	48,534	2.6	64,177	3,505	1,666	35.8	1,158	51.5	6,748	18.6	140.5
	Minneap., St. P. & S. St. Marie	1959	6,781	6,161	12,942	6.2	49,559	2,470	1,154	31.6	964	44.4	3,200	20.2	128.4
		1958	6,932	7,474	14,406	5.3	53,507	2,610	1,230	32.6	1,030	47.8	3,689	20.6	147.7
	Northern Pacific	1959	18,574	16,407	34,981	2.8	61,129	2,950	1,279	30.2	934	49.0	5,270	20.7	120.7
		1958	17,178	20,024	37,202	3.2	63,720	3,175	1,376	30.8	1,017	53.3	5,794	20.1	123.2
	Spokane, Portland & Seattle	1959	1,604	4,890	6,494	2.4	44,264	3,001	1,419	31.8	1,031	45.2	7,068	14.8	96.4
		1958	1,606	4,654	6,260	1.9	45,870	3,158	1,548	32.6	1,207	49.3	8,015	14.6	98.9
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1959	52,423	35,341	87,764	3.7	72,531	2,947	1,152	27.2	1,059	59.9	7,140	24.7	142.8
		1958	55,603	35,676	91,279	7.1	74,505	3,341	1,318	27.1	1,080	60.8	7,341	22.4	129.4
	Chic., Burl. & Quincy	1959	22,487	19,237	41,724	4.0	64,458	2,951	1,244	28.1	1,095	59.8	5,188	21.9	176.2
		1958	22,356	24,206	46,562	3.8	63,958	3,088	1,324	28.2	1,064	56.9	5,452	20.8	173.3
	Chic., Rock I. & Pac	1959	14,517	22,393	36,910	4.4	60,044	2,871	1,240	30.6	996	50.3	4,752	21.0	161.0
		1958	15,085	24,745	39,830	4.3	57,570	2,889	1,270	31.5	899	44.4	4,768	20.0	167.4
	Denver & R. G. Wn	1959	8,485	6,123	14,608	5.6	70,218	3,288	1,512	29.7	883	40.0	6,271	21.4	117.4
		1958	7,047	8,290	15,337	4.7	64,120	3,314	1,589	31.3	1,118	48.0	8,193	19.4	148.8
	Southern Pacific	1959	31,520	44,023	75,543	2.4	68,508	3,194	1,326	28.5	1,224	65.1	11,593	21.7	113.3
		1958	32,312	47,795	80,107	2.0	66,084	3,296	1,333	27.9	1,188	66.2	11,462	20.3	117.5
	Union Pacific	1959	33,134	34,412	67,546	1.8	89,552	3,192	1,257	25.5	1,328	79.3	9,191	28.3	163.1
		1958	29,171	38,079	67,250	2.0	84,821	3,272	1,328	26.9	1,496	85.5	10,542	26.1	170.5
	Western Pacific	1959	2,587	2,943	5,530	3.9	74,744	2,670	1,175	27.4	1,818	90.4	8,538	28.2	210.4
		1958	2,326	3,891	6,217	2.3	79,468	3,062	1,358	28.0	1,763	87.3	9,551	26.1	204.1
Southwestern Region	Kansas City Southern	1959	2,515	5,378	7,893	5.1	97,891	4,772	2,188	33.7	1,075	48.2	9,537	20.6	185.7
		1958	2,527	4,778	7,305	5.9	94,492	4,683	2,165	33.0	1,107	49.0	9,053	20.2	197.7
	Louisiana & Arkansas	1959	2,189	3,039	5,228	6.3	73,875	3,764	1,774	37.3	862	36.6	5,989	19.7	160.2
		1958	2,060	2,919	4,979	8.2	80,164	4,199	1,971	36.6	895	38.3	6,021	19.1	155.7
	Mo.-Kans.-Texas Lines	1959	4,782	6,237	11,019	8.8	57,711	3,632	1,608	32.6	886	43.2	3,505	15.9	115.9
		1948	5,091	7,814	12,905	9.9	53,503	3,242	1,428	29.2	818	42.8	3,569	16.5	104.2
	Missouri Pacific	1959	22,937	26,996	49,933	6.8	68,575	3,385	1,555	32.8	1,165	54.6	5,846	20.3	171.5
		1958	22,085	25,973	48,058	8.4	67,824	3,432	1,607	33.1	1,181	54.1	5,766	19.9	159.9
	St. Louis-San Francisco	1959	11,085	10,785	21,870	1.5	55,316	2,760	1,273	30.7	1,115	53.1	5,383	20.1	191.5
		1958	11,240	11,297	22,537	1.9	56,813	2,914	1,355	31.3	1,077	50.6	5,354	19.6	191.2
	St Louis Southw. Lines	1959	2,040	4,066	6,106	2.0	62,509	2,655	1,187	27.5	2,157	105.5	7,991	23.6	216.8
		1958	2,402	4,738	7,140	2.0	63,905	2,874	1,285	27.1	1,843	89.3	7,961	22.3	195.0
	Texas & New Orleans	1959	6,181	14,579	20,760	2.1	72,877	3,146	1,486	32.6	1,416	63.8	7,137	23.3	151.1
		1958	6,242	15,167	21,409	1.5	67,784	3,116	1,422	31.8	1,221	58.6	6,538	21.9	148.2
	Texas & Pacific	1959	3,300	6,171	9,471	3.8	72,179	3,061	1,211	28.2	1,225	66.7	6,236	23.7	253.6
		1958	3,385	5,858	9,243	4.3	74,208	3,537	1,435	28.2	1,224	65.2	6,178	21.1	216.5

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

PEOPLE IN THE NEWS *(Continued from page 25)*

York, appointed assistant freight traffic manager—rates and divisions. **M. A. Earley** named assistant general freight agent—rates and divisions, succeeding **E. J. McGarry,** promoted to general freight agent—rates and divisions. **J. E. Hayden,** coal freight agent, named assistant general freight agent —rates and divisions.

LAKE TERMINAL.—Ivan S. Gibb, superintendent motive power and equipment, **Donora Southern,** Donora, Pa., appointed superintendent motive power, Lake Terminal, Lorain, Ohio.

LEHIGH VALLEY.—C. F. McBride, commercial coal agent, New York, appointed coal freight agent there, succeeding **Joseph P. McDonald,** coal traffic manager, who retired Dec. 31.

David R. Archibald, commercial agent, Philadelphia, named general agent there, succeeding **C. J. Kaemmerlen,** assistant general freight agent, retired. **S. W. Dougald, Jr.,** commercial agent, named district freight agent, replacing Mr. Archibald. **G. E. Bartley, Jr.,** commercial agent, Chicago, named general agent, St. Louis, replacing **W. F. Lins, Jr.,** district freight agent, retired. **J. J. Ford,** commercial agent, New Haven, named general agent there succeeding **J. J. Hart,** district freight agent, retired.

LONG ISLAND.—George M. Onken, assistant general counsel, Jamaica, N.Y., promoted to general attorney. **Richard H. Stokes,** assistant general solicitor, named assistant general counsel.

LOUISIANA & ARKANSAS.—Franklin P. Crane, assistant engineer, Shreveport, La., appointed division engineer there, succeeding **William C. Borchert,** who retired Jan. 1.

LOUISVILLE & NASHVILLE.—W. P. Shoemaker appointed assistant to general manager, Louisville, Ky., succeeding **F. H. Frazier,** retired.

Claude H. Ryan appointed general agent, Omaha, Neb. **Lawrence D. Miskell** appointed district freight agent, Indianapolis, Ind.

Robert L. Morris, electrical supervisor, appointed electrical engineer, Louisville.

William T. Walling, Jr. appointed freight traffic agent, Birmingham, Ala.

MAINE CENTRAL.—Charles G. Rivers, general engineer, promoted to assistant to chief engineer, Portland, Me. **James O. Born,** engineer of structures, promoted to principal assistant engineer.

MERCHANTS DESPATCH TRANSPORTATION CORP.-NORTHERN REFRIGERATOR LINE, INC.—Ward N. Messimer, manager-equipment, retired Nov. 30, 1959. His successor is **William H. Keleher** (RA, Dec. 21, 1959, p. 65).

MIDLAND VALLEY—KANSAS, OKLAHOMA & GULF—OKLAHOMA CITY-ADA-ATOKA.—Ivan Kendall, mechanical superintendent, Muskogee, Okla., appointed superintendent of transportation there, succeeding the late **J. L. Dodson.**

MISSISSIPPI CENTRAL.—F. E. Montgomery, auditor, Hattiesburg, Miss., appointed acting general manager, succeeding **H. O. Hoffman,** vice president and general manager, who died Dec. 8, 1959.

MISSOURI-KANSAS-TEXAS.—William J. Dooley, sales manager, Houston, Tex., transferred to Kansas City, Mo., succeeding **Murl A. Hutson,** appointed to the newly created position of regional sales manager, Chicago. **William H. Wiley,** sales manager, Tulsa, Okla., named to succeed Mr. Dooley.

John W. Scallan

Herman Altschul

H. H. Rogge

Walter E. Kunze

MISSOURI PACIFIC.—Vernon H. Roewe appointed assistant general freight agent, St. Louis, succeeding **George E. Alter,** promoted to general freight agent there.

Leo S. Altman appointed general attorney, Pueblo, Colo., succeeding **J. W. Preston,** retired.

NEW HAVEN.—Frederick J. Orner, general manager of freight service at New Haven, promoted to chief of operations, with jurisdiction over operations, maintenance of way and equipment, labor relations and personnel, freight and passenger traffic, and purchases and stores.

A separate unit of the freight sales department has been formed for handling of expanding piggyback business. **Joseph B. Dowling,** office manager for the freight traffic vice president, has been appointed to head the new unit as coordinator—TOFC sales, at New Haven. The road also has created a new post of western manager of piggyback sales with offices at Chicago and St. Louis.

NORFOLK SOUTHERN.—J. S. Cagle promoted to division freight agent, Charlotte, N. C., succeeding **C. C. Martin,** retired.

RAILWAY EXPRESS AGENCY.—Walter N. Johnson, general superintendent, purchasing division, appointed assistant to vice president—traffic, New York. **Fred V. Kraft,** assistant to vice president, Eastern region New York, appointed general manager, Allegheny divisions, Philadelphia, succeeding **James P. Downey,** retired. **Henry T. Ridlehoover,** superintendent, St. Louis (Mo.) division, succeeds Mr. Kraft at New York.

RUTLAND.—Bert Garcia, district sales representative, Central region, Rutland, Vt., transferred to Buffalo, N.Y., to succeed the late **Albert W. Cray. Donald P. Looby,** agent, Shelburne, Vt., appointed district sales representative to serve northern and western Vermont, a portion of New York State and a part of western New Hampshire.

SANTA FE.—Starr Thomas, general attorney and commerce counsel, Chicago, appointed general solicitor there, succeeding **R. S. Outlaw,** who has retired (RA, Dec. 21, 1959, p. 66).

SOO LINE.—Robert G. Gehrz, general attorney, Minneapolis, named general solicitor there, succeeding the late **E. E. Boyner. Edward M. Glennon, Osborne Becklund** and **Charles H. Clay,** attorneys, appointed general attorneys, with headquarters at Minneapolis.

E. J. Murphy appointed general agent, Seattle, Wash., succeeding the late **B. R. Olson.**

Supply Trade

John W. Scallan has been elected president of the **American Railway Car Institute. Herman Altschul** and **H. H. Rogge** have been named vice presidents. Mr. Scallan is president of the Pullman-Standard Car Manufacturing Co. Mr. Altschul is vice president —sales of General American Transportation Co. Mr. Rogge is president of the American Car & Foundry Division of ACF Industries, Inc. **G. T. Barker,** vice president and **Walter A. Renz,** secretary and treasurer, were re-elected.

Walter E. Kunze, manager of personnel training, **Portland Cement Association,** appointmanager of the Structural and Railways Bureau, Chicago, succeeding **Alfred L. Parme,** who has been named head of a newly formed advanced engineering group at the association's general offices in Chicago. **John C. Seeger, Jr.,** supervisor of personnel training courses, replaces Mr. Kunze.

Standard Railway Equipment Manufacturing Company, of Chicago, has purchased **Pacific Iron and Steel Corporation,** of Los Angeles. Pacific, a structural steel fabricator and erector of industrial and commercial buildings, will be operated as a subsidiary of Standard under the name **PI Steel Corporation.**

E. J. I. Davies has been appointed manager—railroad sales of **Anaconda Wire & Cable Co.,** at Chicago.

H. E. McKeen, chairman of the board of **Tamper Limited,** Montreal, Que., Can., has announced formation of **Tamper, Inc.** for operations in the United States. **Shirl A. Thompson,** formerly sales manager of Sperry Rail Service, has been appointed vice president in charge of sales for the United States at Danbury, Conn.

Arthur A. Rosewall, general manager, Leasing division, **Ryder System, Inc.,** Miami, has been named president of **Ryder Truck Rental,** a subsidiary.

OBITUARY

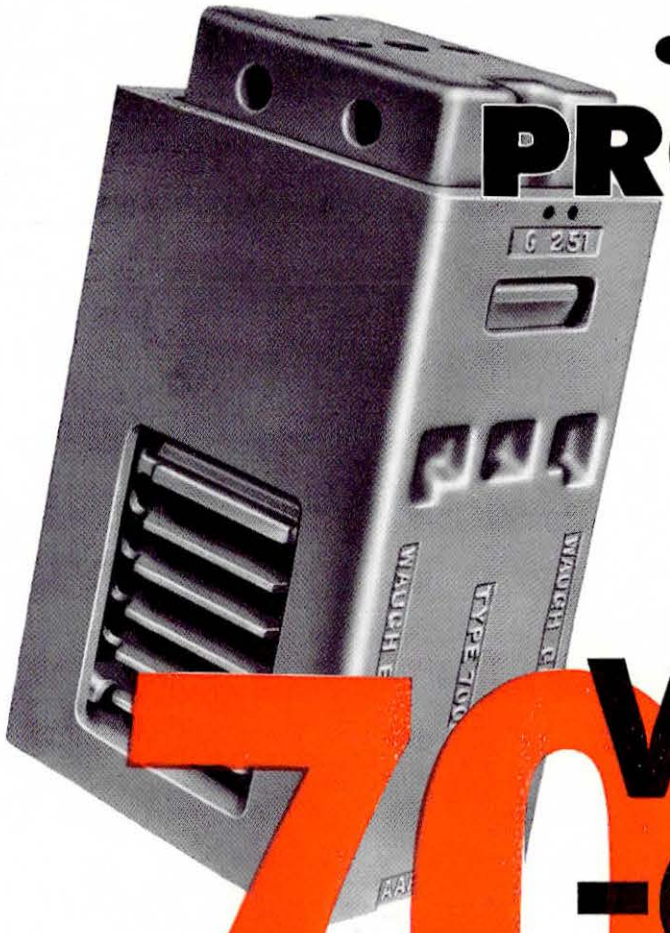
J. S. Chisholm, factory branch manager, **Electro-Motive Division** of **General Motors Corp.,** Salt Lake City, died Jan. 19 at Ogden, Utah.

O. DeG. Vanderbilt, Jr., 75, chairman of the board of **Taylor-Wharton Co.,** and president of **Weir Kilby Corp.,** died Jan. 22 at his home on Indian Hill, Cincinnati, Ohio.

Peter O. Gladhill, 73, retired supervisor of communications and signals, **Chicago & North Western,** died Jan. 15 in Northwest Hospital, Chicago.

TOPS

in CAPACITY ...CUSHIONING ...LADING PROTECTION



Official A.A.R. capacity of 51,600 ft. lbs.* makes the Waugh-Gould Type 700 Friction rubber gear the highest capacity draft gear for standard pockets ever approved by the A.A.R.

Combining extraordinarily smooth action with this high capacity, the Waugh-Gould Type 700 draft gear provides protection for both car and lading in high-speed classification.

Specify on your next order for cars or gears.

TYPE 700 WAUGH-GOULD FRICTION RUBBER DRAFT GEAR

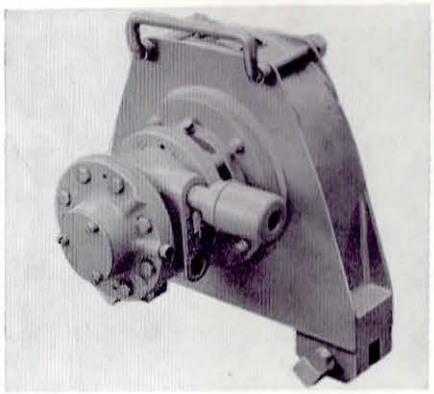
WAUGH EQUIPMENT COMPANY

NEW YORK • CHICAGO • ST. LOUIS

Canadian Waugh Equipment Company: Montreal

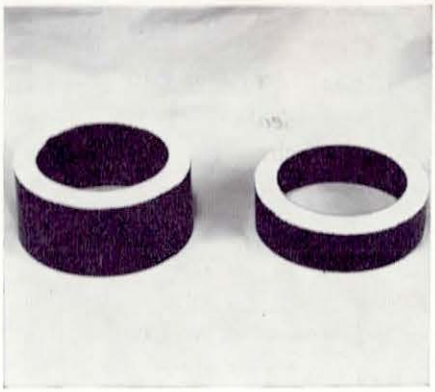
*Certified under A.A.R. Specification M-901-53, Waugh-Gould Type 700 Draft Gear has an official average capacity of 51,600 ft. lbs. at 2.62" average gear closure with average reaction of 1,006,200 lbs. Half travel capacity, 10,640 ft. lbs. or 20.6% of capacity at full travel.

New Products Report



Vibration Inducer

The Vibrolator CCVP is a pneumatically-driven, high-amplitude vibration inducer designed to start and keep materials moving during unloading of hopper cars. The unit can be controlled at any vibration frequency from a few cycles to more than 60 cycles per second. It operates at low noise levels. The unit carries its own mounting clamp, can be mounted at any position or angle. *Martin Engineering Co., Dept. RA, Neponset, Ill.*



Conduit Gasket

The new "Teflon" faced gasket for passenger car steam conduits is said to last three times longer than other gaskets, maintain mechanical stability to 500 deg, withstand most chemicals and to be unaffected by moisture. Reduction of friction provides free movement of the conduit. Gaskets come in four sizes, 2 and 2½ in., with either long or short skirt. *Vapor Heating Corporation, Dept. RA, 6420 Howard St., Chicago 48.*

Flooring Compound

Abrasion and impact resistance of Clinton Epoxy resin surfacing compound is said to be five to six times that of concrete. It adheres to metals, wood, etc., and resists exterior exposure, concentrated acids, and alkalis. It is easy to apply, dries hard to walk on in 24 hr, and is completely cured in seven days. Minimum thickness of application is 1/16 in. Four colors are available. *Clinton Co., Dept. RA, 1210 Elston Ave., Chicago 22.*

Freight-Car Truck

The new Scullin C-C (Constant Control) truck, according to official AAR road tests, has low lading damage index ratios—vertical .44; lateral .43. It is available either with conventional journal boxes or in pedestal design for the application of roller bearings. Any AAR standard long travel springs can be used. Both side frames and bolsters meet all AAR specifications. *Scullin Steel Co., Dept. RA, 6700 Manchester Ave., St. Louis 10.*

Spirap

Spirap is a spiralled plastic wrapping used instead of grouping wires such as lacing, taping, tying, etc. It offers ease of application and abrasive protection. Wires can be taken off at any point where necessary. Spirap will not hold moisture, which causes cable rotting. Reusable, it is made of polyethylene and nylon for indoor or outdoor applications. *American Pamcor, Inc., Dept. RA, 181 Hillcrest Ave., Havertown, Pa.*

Hopper-Car Coating

Thiopox is a coating developed by Thiokol Chemical Co. from a polysulfide liquid polymer and epoxy resin supplied by the Phelan Faust Paint Mfg. Co. It is said to protect against corrosion and to withstand abrasive action of dry chemical and fertilizers. After three years' service in a North American car carrying muriate of potash, the coating was in excellent condition. *Thiokol Chemical Corp., Dept. RA, 630 Fifth Ave., New York.*

Infra-Red Heaters

The infra-red rays of these portable radiant heaters are concentrated on specific areas by polished parabolic reflectors without heating the surrounding air. Workmen, tools and material are said to remain comfortably warm even in temperatures of zero or below. The heaters operate, outdoors or in, on bottled propane. They are available in three sizes. *Perfection Industries, Division of Hupp Corp., Dept. RA, 1135 Ivanhoe Road, Cleveland 10.*

Crossarm Gains

Adjustable crossarm gains are available for use on single or double dimension H frame structures. An adjustable shelf accepts crossarms from 7 to 12 in. high. Both contacting surfaces have teeth which grip the pole or arm and take most of the load off the wood surrounding the through bolt hole, increasing the transverse stability and providing more efficient load transfer. *Malleable Iron Fittings Co., Dept. RA, Branford, Conn.*

New Tractor Series

The new D9 Series E tractor will be available with direct drive, torque converter drive or power shift. Horsepower has been increased to 335, from 320 on the previous D9 model. Principal improvements on the new series are concentrated in the undercarriage. The track group is all-new, with dimensional increases and a strengthening of all components, according to the manufacturer. *Caterpillar Tractor Company, Dept. RA, Peoria, Ill.*

MARKET OUTLOOK *at a glance*

Carloadings Fall 3.0% Below Previous Week's

Loadings of revenue freight in the week ended Jan. 23 totaled 587,339 cars, the Association of American Railroads announced on Jan. 28. This was a decrease of 18,418 cars, or 3.0%, compared with the previous week; an increase of 31,589 cars, or 5.7%, compared with the corresponding week last year; and an increase of 36,251 cars, or 6.6%, compared with the equivalent 1958 week.

Loadings of revenue freight for the week ended Jan. 16 totaled 605,757 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, Jan. 16

District	1960	1959	1958
Eastern	95,088	91,397	89,493
Allegheny	114,898	100,325	102,137
Pocahontas	54,915	49,715	48,509
Southern	115,707	113,070	111,408
Northwestern	65,854	66,815	66,305
Central Western	111,958	115,356	107,117
Southwestern	47,337	49,664	47,917
Total Western Districts	225,149	231,835	221,339
Total All Roads	605,757	586,342	572,886
Commodities:			
Grain and grain products	50,823	60,385	57,208
Livestock	5,434	6,119	5,816
Coal	114,972	116,173	118,551
Coke	12,119	8,751	7,369
Forest Products	41,377	37,978	36,254
Ore	22,759	16,013	16,917
Merchandise l.c.l.	36,613	40,322	43,356
Miscellaneous	321,660	300,601	287,415
Jan. 16	605,757	586,342	572,886
Jan. 9	591,515	550,666	569,807
Jan. 2	483,012	468,219	472,284
	1959	1958	1957
Dec. 26	468,752	432,148	409,598
Dec. 19	615,365	571,147	590,314
Cumulative total, 2 weeks	1,197,272	1,137,008	1,142,693

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended Jan. 16 totaled 9,596 cars, compared with 6,629 for the corresponding 1958 week. Loadings for 1959 up to Jan. 16 totaled 18,591 cars, compared with 12,648 for the corresponding period of 1958.

IN CANADA.—Carloadings for the seven-day period ended Jan. 14 totaled 66,882 cars, as compared with 48,839 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Total for Canada		
Jan. 14, 1960	66,882	27,858
Jan. 14, 1959	68,297	26,091
Cumulative Totals		
Jan. 14, 1960	115,721	52,077
Jan. 14, 1959	116,725	47,535

New Equipment

FREIGHT-TRAIN CARS

► *Seaboard Air Line.*—Will convert 200 coal hopper cars into wood-chip cars at its Portsmouth, Va., shops, at a cost of slightly more than $1,000,000. Parts for new bodies for the cars are being manufactured by Pullman-Standard in Bessemer, Ala.

► *Wabash.*—Authorized placement of order with American Car & Foundry for 550 50-ton, 40-ft 6-in. box cars at a cost of more than $5,000,000. All cars will be equipped with roller bearings and will have 8-ft door openings. General Steel Castings Corp. will supply cast steel underframe ends and bolsters for use on 200 of the cars. Wabash shops at Decatur, Ill., will build 350 50-ton, 50-ft 6-in box cars with 15-ft double doors. Order includes 150 roller bearing cars, of which 100 will be equipped with adjustable belt rails and door posts and 50 with fixed rails and adjustable door posts. New car deliveries are scheduled for June-July. Decatur shops will also do major repair and upgrading on 1,600 freight cars of various types.

► *1959 Freight Car Orders.*—Orders for new freight cars in 1959 totaled 62,263, according to the American Railway Car Institute. It was erroneously reported in an earlier issue (RA, Jan. 18, p. 94) that 1959 car orders totaled 51,703. This listing was based partially on 11-month figures.

SPECIAL

► *Burlington.*—Will spend in excess of $1,000,000 for purchase of 100 40-foot, dry-van trailers to be built by Brown Trailer Division of Clark Equipment Co., and 50 flatbed trailers (builder not announced). Delivery, to be made within the next few months, will complete acquisition of 350 TOFC highway units authorized late last year (RA, Dec. 21/28, 1959, p. 63).

LOCOMOTIVES

► *842 New Units Installed in 1959.*—Class I railroads installed 842 new locomotive units (835 diesel-electric; seven gas turbine-electric) in 1959, according to the AAR. In 1958, they installed 434 (430 diesel-electric; four gas turbine-electric). New locomotive units on order Jan. 1, 1960, totaled 314, of which 228 were diesel-electric, 20 were gas turbine-electric and 66 were e'ectric. On Jan. 1, 1959, Class I railroads had 561 new locomotive units on order, of which 535 were diesel-electric and 26 were gas turbine-electric.

Maintenance Expenditures

► *Down 0.7% in November.*—Expenditures by Class I roads for maintenance of equipment, way and structures in November 1959 were down about $1.7 million, compared with the same month in 1958, according to report of ICC Bureau of Transport Economics summarized below:

	November 1959	November 1958	% Change
Maintenance of Way and Structures	$ 94,677,068	$ 97,759,420	—3.2
Maintenance of Equipment	144,698,048	143,273,791	+1.0
Totals	239,375,116	241,033,211	—0.7

RAILWAY AGE time-saver page

AAR Piggyback Task Force Goes

► **The Story at a Glance: At least one element of standardized operation —a uniform code of interchange rules —may be injected into the sometimes confusing but always interesting piggyback picture by the end of 1960.**

A special task force, working under the AAR Mechanical Division's Arbitration Committee, has started the vast job of collecting data on present trailer-container operations. From this, rules will be written which will probably then go to the Arbitration Committee for revision and approval and to AAR member roads for final approval.

Meanwhile, a second group (in the Operating-Transportation Division) is developing questionnaire schedules which may eventually bring uniformity to trailer-container per diem charges.

Piggyback's headlong growth has produced problems in many areas where standardization may someday be necessary. Little progress has been made toward equipment standardization—but AAR committees are now working toward uniformity in two other important fields: interchange rules and per diem charges applying to trailers and containers.

A four-man task force has been assigned to the interchange job. Its assignment: To prepare an appendix to the AAR Code of Interchange Rules which will be applicable to railroad-owned or -leased trailers and containers in TOFC service. It's possible that the resulting rules may provide a basis for agreement on rules covering equipment owned by truckers or shippers and moved under Plan 1, 3, 4 and 5 operations.

The appendix will cover items such as:

- Definition of owner and handling line responsibility for damage.
- Schedules covering various types of repair transactions with equitable charges established for such work.
- Creation of a system for carding and protection for unfair damage.
- Per pound prices to cover settlement for each type of trailer destroyed away from its home line.
- Rates of depreciation for each style and type of trailer.
- Reproduction costs of equipment.

Field studies now in progress will take task force members to all parts of the country, so that information collected will be representative of different types of equipment and operating practices.

Data will also be sought from trailer and container manufacturers. (Consideration will be given to existing rules set up by motor common carriers to cover highway interchange, where such rules are applicable to the TOFC situation.)

General aim of the task force (complicated by the variety of equipment in service and differing handling methods used) will be to write one set of rules and regulations covering all types under all situations.

The per diem study, slightly less advanced now, will be handled through a questionnaire to roads operating TOFC service. Returns will be tabulated and analyzed by the O-T Division's special committee on mileage and per diem, which will then report to the general committee. Here again, variety in type of equipment may work against complete uniformity. The result may be a schedule varying for type of trailer-container but uniform nationwide for each type.

In TOFC's development thus far, most agreements covering interchange and per diem have been limited in scope. A number of eastern roads set up a rules program; western roads, through the Western Railroad Truck Lines Association, arrived at their own schedule of rules and charges. As in most phases of piggyback, general uniformity is lacking—and, it's reported, the actual working of the agreements has been something less than wholly satisfactory.

Twenty-four eastern roads are parties to the Cleveland Truck Trailer Interchange Agreement, which grew out of an arrangement set up by Lackawanna and Nickel Plate to handle their TOFC interchange. The organization has a published set of interchange rules—but lack of a uniform per diem agreement has proved to be one stumbling block to efficient operation of the system. And there's no set procedure to cover interchange with roads not party to the agreement.

Western railroads and truck lines have a similar pact (covering both interchange rules and per diem). Still arrangements between individual roads vary. One rail truck line officer commented that agreements "come in 57 varieties . . . It's not satisfactory." What are the principal problems? Establishing responsibility for damage; and setting up an equitable, workable per diem arrangement.

This observer sums up the situation simply: "Some agency, speaking for the whole industry, will have to handle the problem—to bring order out of chaos."

Reconciling the differences will be the job of the task force headed by J. P. Svetlecic, special representative, MP, and a member of two former task force groups. Others in his force: C. E. Fitts, superintendent, Santa Fe Trail Transportation; D. A. Swanson, district car inspector, NYC; and L. E. Hilsabeck, mechanical inspector, AAR.

Mr. Svetlecic, on the job since last Sept. 1, has already covered considerable ground in researching the problem in the East and Southwest. A second man was added to the team in November and the four-man force was filled

NH: Big Switch

A series of top-level personnel changes was announced by the New Haven last week. President George Alpert said the objective was to put responsibility for management and operations back in the hands of long-time employees.

The positions of executive vice president (formerly held by Charles C. Shannon) and vice president—operations (held by Albert T. Peagan) were dissolved. Named as chief of operations (see page 28), and later elected vice president, was Frederick J. Orner.

Hollis H. Coyle, assistant comptroller, was promoted to comptroller. The position of vice president and comptroller, formerly held by Paul J. Connery, was dissolved.

William Scheibler was restored to the position of general superintendent, a job he had previously held up until March 1958. Clayton J. McPhail, general superintendent of transportation, and Leroy J. Stift, superintendent, New Haven freight terminal, resigned.

Leslie H. Tyler, formerly chief information officer and a New Haven employee for 47 years, was promoted to vice president—public relations. Allen D. Fields, formerly director of public relations, New York, was named assistant vice president—public relations.

Assistant Vice President Richard J. Duggan retired after 40 years' service.

Mr. Orner has said that his first job as the road's new operating head will be to restore the faith and morale of the New Haven's employees and patrons.

to Work

out to its present size Jan. 1.

Indications are that the interchange rules task force and the group working on per diem will maintain a mutual assistance liaison during their investigations.

Task force operations in the past have proved effective in routing some of the knottier problems the AAR has faced. Special groups did research, testing and investigative work which led to adoption of the AAR standard coupler and present standard air brake. Most recently, a task force handled simplification of interchange rules through introduction of machine billing. In still another case, the task force approach has been proposed (by Ward N. Messimer, retired manager—equipment, Merchants Despatch Transportation and Northern Refrigerator Line) as a means of handling the hotbox problem (RA, Dec. 7, 1959, p. 31).

Maine Central Implements Passenger Recommendations

Maine Central took steps last week to comply with PUC recommendations aimed at putting passenger service on a paying basis.

The railroad, which had applied for authority to discontinue all passenger service, was ordered to continue two round-trip trains a day—between Portland-Bangor and Portland-Vanceboro—on a trial basis for one year.

At the same time, the PUC suggested how management, the general public, the Maine Legislature, railroad labor and local governments might act to save the service.

"While it will be interesting to see if any of the other parties do anything at all," said MC President E. Spencer Miller, "we will."

In line with the PUC's recommendations, the railroad plans to:

- Revamp train schedules to insure "insofar as possible operation on time with sufficient station time and with some latitude in the schedule."
- Issue new timetables.
- Inspect cars more closely "to make sure that they are as attractive as possible leaving each terminal."
- Adopt a new advertising program to stimulate passenger sales.
- Seek "lower and more realistic" tax valuations from local governments.
- Institute a program "for the disposition of surplus property, including rolling stock and particularly station facilities and land used in connection therewith."

How L&N Improvements Pay Off

Projects	Cost	Estimated Annual Saving	% Return
Boyles yard, Birmingham, Ala.	$10,916,000	$1,593,000	14.6
Consolidation with ACL of yard operations at Montgomery and Atlanta	683,000	1,000,000[1]	146.4
Univac File Computer system for car tracing and car accounting	180,000[2]	155,000	86.1
Mechanization of air-brake cleaning and repair shop at Louisville and of light freight-car repair facilities at Nashville and Birmingham	500,000	280,000	56.0
Organization of 10 mechanized M/W gangs	1,600,000[3]	1,270,000	79.4
Automated wheel shop at Louisville[4]	1,000,000	200,000	20.0
70 main-line track-miles of welded rail[4]	.....	70,000	.....

[1] Divided between L&N and ACL in proportion to use.
[2] Annual rental.
[3] Cost of equipment.
[4] Authorized.

L&N Discloses Spending Plans

Complete "relief from the burden of featherbedding" would save the Louisville & Nashville an estimated $10,460,000 a year, President W. H. Kendall told the New York Society of Security Analysts in a statistic-packed talk on Jan. 22.

Most of the saving—$6,000,000—would come, Mr. Kendall said, if the road should be permitted to eliminate firemen in freight and yard service under some such gradual plan as is used in Canada. Revision of basis of pay and assignment for all classes of operating employees would save another $4,220,000. The remaining $240,000 would come from "abolition of agreements requiring a specified number of employees in road or yard crews and use of train, yard and engine service employees on self-propelled roadway and shop equipment."

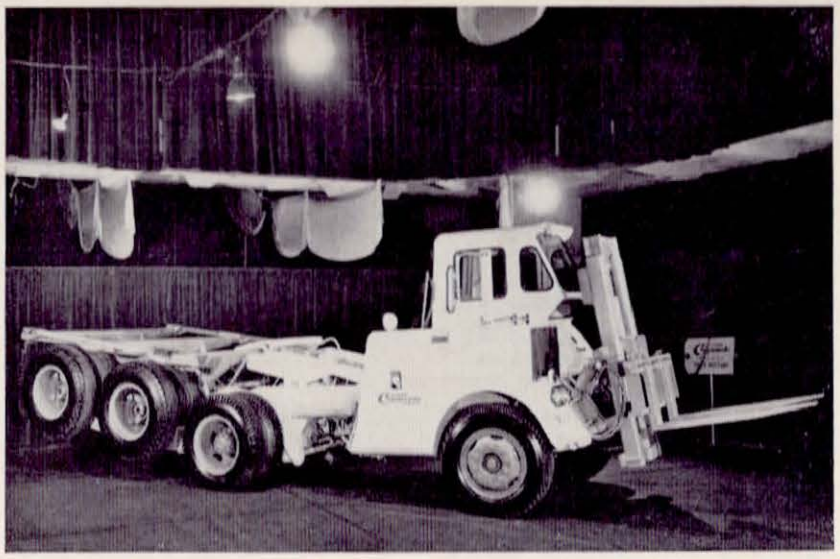
Even though such relief is only "a hopeful possibility," Mr. Kendall told the analysts the L&N plans to spend $43,000,000 this year on new equipment and facilities. "Heading the list" will be $33,000,000 for 3,000 new roller-bearing freight cars (RA, Nov. 30, 1959, p. 83), which he termed "the largest single order for roller-bearing equipment ever placed by an American railroad."

The other $10,000,000, he said, would go "for transportation facilities and further mechanization in mechanical and roadway operations," including, specifically, 70 main-line track-miles of welded rail; a fully automated wheel shop at Louisville; and complete modernization of the South Louisville freight car repair shop.

He also revealed plans for a fourth electronic yard at DeCoursey, Ky. (Cincinnati), to supplement those already in service at Nashville, Atlanta and Birmingham. According to "preliminary plans," he said, "we will largely retain present facilities, which include retarder operation for northward traffic, but will add retarders for southbound traffic, a southbound classification yard, expanded receiving and departing trackage, additional empty-car storage room . . . and new and more extensive light car-repair facilities."

"Much of the economy of the DeCoursey installation will extend," he added, "beyond the yard itself, for it will permit us to curtail or eliminate car handling as well as switching and running repairs at smaller intermediate local yards and shops . . . and hence result in reduction or elimination of overhead at these smaller terminals."

Mr. Kendall scotched persistent rumors that his company was considering purchase of one or more German-built diesel-hydraulic locomotives, but said it "would study with interest any development holding promise of greater efficiency or economy."



Unit Eases TOFC Terminal Problem

Ottawa Steel Division of Young Spring & Wire Corp. has developed one prime mover—the Commando YardHustler—which can jockey a conventional piggyback trailer or a Flexi-Van rig with equal ease. Rail-Trailer Co. is acquiring six Yard-Hustlers, will handle distribution of the unit in its piggyback application. Base component of the Yard-Hustler is Ottawa's new Commando (RA, Dec. 21, 1959, p. 44). For conventional trailer work, the unit gets a hydraulically-powered fifth wheel. For Flexi-Van, it also gets a pair of hydraulically-operated forks attached at the rear of the chassis. The forks, inserted between the dual wheels of a F-V bogie and raised slightly, enable the Yard-Hustler literally to carry the bogie to where it must be spotted for an unloading operation. When not in use, forks fold flat against unit.

RR Automation Gains Cited

Automatic train and locomotive operation is not only a possibility—it's already a reality, a leading railway supply spokesman told the January meeting of the New York Railroad Club.

John W. Hansen, manager of sales promotion and advertising of Union Switch and Signal—Division of Westinghouse Air Brake Co., pointed out that:

- Orders have been placed for equipment for remote control of crewless locomotives (RA, Nov. 30, 1959, p. 7).
- Automatic train operation is either under test or study for two rapid transit systems (RA, Feb. 2, 1959, p. 33; also see p. 19, this issue).
- In addition to these steps taken in the U.S., automatic trains (as opposed to remotely-controlled trains) are under test in Russia (RA, April 27, 1957, p. 75).

"The Plymouth Locomotive Works," said Mr. Hansen, "has already ordered remote control equipment to be installed on a conventional type locomotive, for in-plant demonstrations to customers of the practicability of operating industrial switching locomotives without an operating crew. This equipment, which will make remote controlled operation possible, will be offered by the Plymouth Works as an optional feature to buyers of industrial switching locomotives. With this equipment an operator can, just by turning miniature levers, release brakes, start the locomotive and control its speed, apply brakes, stop the locomotive, and stop the engine. In addition, provision is made for reversing the running direction, sanding and blowing a whistle.

"An order was recently placed by a steel company for equipment to remotely control a pusher locomotive to deliver loaded ore cars to a rotary dumper. With this equipment all control functions required in this type of operation will be initiated from a remotely located panel by an operator using miniature levers. Control of the locomotive will be sufficiently precise to enable the locomotive to 'spot' cars exactly on the dumper.

"A set of equipment for the remote control of a switcher locomotive operating over approximately 15 miles of in-plant trackage has also been ordered. Control of the movement of the locomotive will be from a remote portable radio transmitter carried by an operator who can be as far as 400 ft from the locomotive. Seven speeds forward or backward, power on and off, brakes on and off, sanding, bell-ringing and whistle blowing will be provided for this operation.

"In addition, tests are presently under way here in New York for the operation of completely automatic trains. In this operation, an automatic programmer directs the starting of the train. Automatic equipment controls its acceleration, its normal running speed and a planned deceleration to stop at the station. Basic to this contemplated operation is the double-check feature which will guarantee control of train movement through a track circuit-controlled signal and train control system.

"Presently under consideration by the San Francisco Bay Area Rapid Transit District are plans to erect an automatic passenger transportation system. . . .

"A report from the other side of the world reveals that Russian railroads have completed a series of successful tests with analog computer-type equipment to provide automatic control of a moving train."

Pullman-Standard Boosts Research-Development Budget

Pullman-Standard is increasing its research and development budget to more than $1,500,000 this year "to assist the nation's railroads in meeting the requirements of shippers for new type freight cars and lading protection devices."

The 1960 figure represents a 50% increase over R&D expenditures in 1959. P-S is aiming at better flexibility—in determining shipper needs, then in instituting special projects to fill those needs. The company will intensify its program of market research on shipper needs, car parts and miscellaneous railway products. The resulting information will be used to develop additional research projects.

The '60 program will also place added emphasis on development, engineering and marketing of new equipment for TOFC and container operations.

"If the railroads are to recapture some of the business they have lost to other forms of transportation," P-S President J. W. Scallan commented, "it's up to the car-building industry to join hands with them by furnishing new and improved types of cars and lading protection devices to do the job."

The budget increase, Pullman-Standard said, is based on the success of the P-S standardized freight-car program—130,000 units sold over a 12-year period.

Total Transport Reading Goal

"We've got to be thinking in terms of what our customers need. This means diversity of services; we've got to tailor what we sell to what these people need."

With these comments, T. H. Ramsey, Reading general freight traffic manager, summed up his railroad's recent operating and traffic staff meeting held in Philadelphia's new Sheraton Hotel.

The Reading, which is in a favored position to sell "total transportation" because of grandfather rights in its trucking subsidiary, Reading Transportation Co., is doing everything it can to take advantage of its opportunity. It lays heavy stress on its piggyback service (both Plan II and Plan III), and it has recently established, with Seatrain Lines, a joint truck-water-truck service. With the exception of air and pipeline freight, the Reading offers every kind of service that is available in its territory.

A Reading freight traffic salesman sells any part of the freight service that his customer can use. No distinction is made between selling the service of the railway system, the TOFC service, the Reading Transportation Co. (truck) service or Reading Seamobile. The choice between the services is made in terms of what the customer's requirements are.

The Reading's "total transportation" concept means that the railroad's traffic personnel are able to get off the traditional railroad locations looking for new business. Reading men are visiting plants without railroad sidings that would ordinarily be served by truck, and they are selling them one part or another of the Reading's service—if not a straight rail movement, a joint movement with one of the Reading's affiliates.

One full day of the operating and traffic staff meeting was devoted to discussing Reading's objectives for 1960. Joseph A. Fisher, Reading president, set the keynote for the meeting by outlining the railroad's four chief objectives for 1960:

- Improving service.
- Selling total transportation tailored to individual shippers' needs.
- Pricing freight in terms that are realistic both from the cost standpoint and from the point of view of attracting traffic.
- Intensified sales promotion.

The traffic is available, Mr. Fisher told his salesmen, and aggressive selling, in terms of service, will get it.

Operating Vice President E. P. Gange were promised the traffic department that the operating department would provide the schedules and services required to get and hold traffic.

Rail-Welding Plant Near Alabama Mill

Matisa Railweld, Inc., has contracted for a site for a rail-welding plant at Bessemer, Ala., adjacent to the rail mill in that area of the Tennessee Coal & Iron Division of the United States Steel Corp. Welded rail will be in production some time in May of this year, and the plant will provide a contract service to the railroads at a total cost per joint less than that of the conventional bolted joint, said Robert P. Underwood, vice president and general manager of Matisa Railweld.

It was pointed out that the service will be available to all railroads obtaining rail from that area, regardless of size, since the company will supply all equipment and services and make it possible, if the road desires, to obtain the special cars necessary for carrying continuous welded rail. The welded rail will be supplied in all lengths from 78 ft to ¼ mile at one fixed cost.

NYC Plans Sixth New Yard

The New York Central, which recently announced plans for a $13,000,000 electronic classification yard at Detroit, will build still another terminal of this type, probably at Albany, N. Y., or Syracuse.

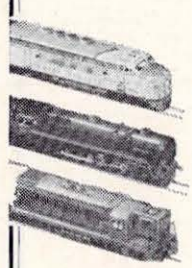
NYC President A. E. Perlman said economic studies on this new yard haven't been completed but will be sometime this year. Construction of the Detroit yard, Central's fifth such facility in five years, will begin this year and is due for completion in 1961 (RA, Jan. 25, p. 39).

Mr. Perlman's talk, before security analysts in New York on Jan. 21, covered major aspects of the road's continuing modernization program. He said the road has budgeted 740 additional miles of CTC this year, another 435 track miles are "on the drawing board" for 1961, and long-range plans call for 1,100 more miles by 1967. The 1960 CTC program will be enough to reduce all four-track line to two-track, except in commuter zones, Mr. Perlman said.

The road will install 20,000 tons of welded rail this year—"all our new rail is welded now"—and the 1960 crosstie program calls for putting in 1 million ties. Relay rail this year will total about 22,700 tons, Mr. Perlman added.

The NYC president mentioned savings like these which have resulted from various programs:

- Initial investments in CTC have paid an 87% return, plus trimming freight running time; for example, to 3.5 hours from 7 hours, on the Cleveland-Buffalo segment.
- Use of prefab track panels in the new Indianapolis yard, now under construction, has enabled the road to put in track at 75 cents per ft, vs. $2.58 at the Elkhart, Ind., yard, completed in early 1958.
- Extension of the production-line repair idea from rip tracks to two diesel shops has increased output "substantially." In the diesel shop setup, battery power is used to "walk" locomotives between fixed stations on the repair line.



You'll find all the facts about iron horses in

THE CONCISE ENCYCLOPEDIA OF

World Railway Locomotives

Edited by P. Ransome-Wallis

Nine locomotive experts, including the editor-in-chief of TRAINS magazine, pool their knowledge of steam, diesel, electric, turbine, fire-less, even propeller-driven motive power to describe the why and wherefore of locomotive design, construction, operation and overhaul. The full story of railway locomotion around the world—with a preview of tomorrow's exciting potential. **$12.95**

At your bookstore or **HAWTHORN BOOKS**
70 Fifth Avenue, New York 11, N. Y.

You Ought To Know...

Aluminum freight cars will be used in volume by the railroads by 1970, Kaiser Aluminum predicts. Other forecasts: a nationwide container program with standardized units owned and controlled by a central agency will be established; aluminum box car lining and aluminum lading bars and bulkheads will be used increasingly; aluminum nailable car flooring will be introduced (all by 1963).

Fines totaling $73,350 were paid during 1959's last four months by 43 railroads for violations of the Safety Appliance, Hours of Service and Accident Reports acts. Biggest payer, according to the ICC, was the New York Central, assessed $9,500. Runner-up was the Milwaukee, which paid $7,750.

Rail rates on export grain shipments via the St. Lawrence Seaway were cut 17% last week by the C&NW and Milwaukee, after the ICC upheld the reductions (applicable from Missouri River cities to western Great Lakes ports). The two Chicago-based railroads claim the reductions make the combined rail-water rate for Midwest grain exported via the Seaway competitive with movements via Texas and Gulf ports (RA, Jan. 25, p. 43).

The road to integrated transportation is strewn with hurdles—but "progress has been made . . . and more progress is being made each month," according to G. K. Weigel, financial vice president of North American Car. Mr. Weigel told the Los Angeles Society of Security Analysts that "the various carriers will have to call an armistice . . . transport unions will have to digest the new technology . . . our national transportation policy will need to undergo several injections of vitality."

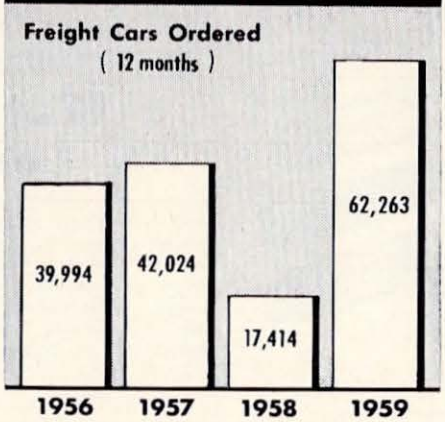
Nineteen railroad employees were killed on duty and 1,037 were injured in November 1959, compared with 12 deaths and 1,086 injuries in November 1958. No passengers were killed, but 102 were injured in November train and train-service accidents. The latter compared with 116 injuries in November 1958, when there were also no passenger fatalities.

Canada's newest railroad has received its first locomotive, an 1,800-hp diesel built by Montreal Locomotive Works. Quebec Cartier Mining Co. has ordered a total of 17 units, which will operate in four-unit combinations to move 125-car trains 193 mi. from an iron concentrating plant in northern Quebec to Port Cartier, Que. Grading has already been completed on 70 mi. of the new line, track laid on 15 mi. Completion is slated for late this year.

En route to Argentina last week: first of 11 diesel-electric locomotives for use in development of that country's booming oil industry. Built by General Electric Locomotive & Car Equipment Department in Erie, Pa., the locomotives were purchased at a cost of $2,200,000. They'll haul strings of tank cars from oil fields near Mendoza in the west to refineries near Buenos Aires.

New Fords, fresh from the company's Louisville, Ky., assembly plant, are now moving to dealers via Louisville & Nashville piggyback. First shipment consisted of 24 cars—eight for Mobile, Ala., 16 for Tulsa, Okla. Cars are loaded four to a trailer, two trailers to an 85-ft TTX flat car.

...And Watch



The Railway Progress Institute has hung out the "no vacancy" sign for its Feb. 2-4 railroad sales development seminar to be held at Highland Park, Ill. Conference attendance was limited to 100—and the 100th reservation came in by mid-January. The seminar is intended to broaden railway supply company salesmen's understanding of the changing problem of selling to the railroads; to sharpen and improve sales techniques.

A three-for-one stock split has been approved by Western Pacific shareholders, through an amendment to the company's articles of incorporation. WP has asked ICC authorization for the issuance of additional shares. After that approval has been received and after notice has been filed with the California secretary of state, the split will become effective.

Northern Pacific's 1959 safety record was the second best in the road's history—3.63 injuries per million man-hours worked, a mark bettered only by the 3.12 figure posted in 1957. NP's Idaho Division achieved a ratio of 1.54 to win the president's safety award for the first time.

An electrification program British Railways is undertaking in the London-Midland area is getting some American assistance. Six American railway signal department men are helping complete this 200-mi territory of two-and four-track systems. In England for the purpose are men from the New York Central, Nickel Plate, Reading, and Richmond, Fredericksburg & Potomac.

Putting youngsters on the right track is an Atlantic Coast Line coach temporarily serving as a Sunday School "building" for St. John's Protestant Episcopal Church in Charleston, S. C. ACL lent the 88-passenger coach to the church after its building burned to the ground in November, built a short section of track right up to the church area to get it there.

D. C. Buell, director, Railway Educational Bureau, died Jan. 21 at Omaha. Mr. Buell has served with the bureau, which he originated, since 1914. He was 78.

BAKER-built trailers for your piggyback service

Unusually sturdy construction makes your BAKER trailer efficient. Your shippers will like the "safe on arrival" condition of merchandise shipments in BAKER trailers built especially for their protection.

We'd like to tell you more of the BAKER story in detail. Your inquiry will be appreciated.

BAKER TRAILER & BODY COMPANY
INCORPORATED
700 North 20th Street, St. Louis 3, Missouri

Advertisers' Index

Baker Trailer & Body Company, Inc. 37

Chevrolet Motor Division, General Motors Corp. 8
Classified Ads 37

General Railway Signal Company 20-21
General Steel Castings Corp. 11

Hawthorn Books, Inc. 35
Hunt Company, Robert W. 37

Iron & Steel Products, Inc. 37

Jackson Vibrators, Inc. 7

Miner Inc., W. H. 3

Standard Oil Co. of Indiana ..... Inside Front Cover
Standard Railway Equipment ..... Back Cover
Striegel Supply & Equipment Corp. 37
Symington-Gould Corp. ..... Inside Back Cover

Timken Roller Bearing Company 16-17

Union Switch & Signal, Division of Westinghouse Air Brake Company 4

Waugh Equipment Company 29
Weiss Company, B. M. 37

CLASSIFIED ADVERTISEMENTS

FOR SALE
railway equipment
Used—As Is—Reconditioned

Special Offerings
3—Diesel-Electric Locomotives 44-Ton General Electric
ICC Operating Condition—Standard Gauge

RAILROAD TRACK SCALE
1—125-Ton, 52'6", Buffalo Scale Co.

Service-Tested Freight Car Repair Parts For All Types of Cars

Railway Tank Cars and Storage Tanks 6,000- 8,000- and 10,000-gallon Cleaned and Tested

IRON & STEEL PRODUCTS, INC.
"ANYTHING containing IRON or STEEL"
General Office Chicago 33, Illinois 13486 So. Brainard Ave. Phone: Mitchell 6-1212
New York Office Room 1608, 51C East 42nd St. New York 17, New York Phone: YUkon 6-4766

SALES ENGINEER

Well established firm offers unusual opportunity to man with knowledge of railroad cars and equipment. Previous sales experience in railroad field preferred. Please review experience; state age and salary requirements in your reply. All inquiries strictly confidential. Box 916, Railway Age, 30 Church St., New York 7, N. Y.

Exceptional Opportunity To Represent A Prominent Railroad Leasing Firm

New position; assistant to company's leasing executive. To make contacts with railroads for equipment leases. Background or knowledge of railroad field important. Please review experience; state age and salary requirements in your reply. Strict confidence maintained on all inquiries. Box 915, Railway Age, 30 Church St., New York 7, N. Y.

Robert W. Hunt Company
ENGINEERS
Inspection—Tests—Consultation
All Railway Equipment
General Offices:
810 S. Clinton Street
CHICAGO 7
All Principal Cities

RAILROAD CAR DESIGNER

Large tank car concern with offices in Chicago's Loop is seeking graduate engineer with experience in R.R. tank car, freight car or component design.

If you want to assume responsibility and be treated as an individual, why not contact us.

Please submit detailed resume stating salary desired. Write Box 218 Railway Age 79 West Monroe Street, Chicago 3, Ill.

FOR SALE

Baldwin Diesel Electric 120 Ton, 1000 H.P. Switcher. Rebuilt 1955 less than 2000 hrs. since rebuilt. Bargain Price. STRIEGEL SUPPLY & EQUIPMENT CORP., 307 Jack Street, Baltimore 25, Maryland. Phone ELGIN 5-7922.

ENGINEER WANTED

Young track supervisor with engineering background or engineer with track background for Chicago area belt railroad. Unusual employee benefits. Central location. Wonderful future. Apply Box 160, RAILWAY AGE, 79 W. Monroe Street, Chicago 3, Ill.

SITUATION WANTED
A.A.R. SPECIALIST

Young, ambitious assistant to chief in Mechanical Department. Ten years experience. Full knowledge of A.A.R. rules. Box 260, RAILWAY AGE, 79 West Monroe Street, Chicago 3, Illinois.

SALE OR RENT

1—45 Ton G.E. D.E. Loco.
1—65 Ton Porter D.E. Loco.
1—Betts-Bridgeford Axle Lathe

B. M. Weiss Company
Girard Trust Bldg.
Philadelphia 2, Pa.

KEEP BUYING U. S. SAVINGS BONDS

POSITION AVAILABLE

Railway Signal Circuit Engineer

For electric railroad in New York City area. Rapid transit experience desirable. In reply state age, education and employment history, present salary and complete details of experience. Box #917, RAILWAY AGE, 30 Church St., New York 7, N. Y.

Suburban Service, Without Subsidy

Hauling suburban passengers is not a primary function of full-fledged railroads. This job—with which a handful of railroads are stuck in three or four metropolitan centers—is a relic of the horse-and-buggy days, when railroads were the only form of transportation not propelled by muscle-power. The railroads got into the service, where the demand arose, in the same way that they got into peddler car service from station to station, in the handling of LCL.

Both were services railroads could afford to provide without profit, as long as there was plenty of premium-paying tonnage on the rails—so an over-all profit was assured. That day has long since passed. Meantime, however, suburban service has recently taken on new importance to some of our biggest cities—but its importance rests with those cities, not with the railroads.

•

It would be a major tragedy, if one or more railroads—important to the nation's commerce and defense—were driven into bankruptcy or even to partial abandonment, by being forced to provide a philanthropic service for people and localities that are fully capable of paying for the kind of service they demand.

It would be equally tragic if the railroad industry—practically the only major industry in the country not tainted with socialism—were to be put in a position where its critics could induce the public to believe that the industry was being subsidized by the federal government.

A few of the railroads involved in suburban operation believe they can live with this problem, as is—with higher fares and some consideration from the taxing authorities. More power to them. Others contend that such tax concessions as they can foresee, and higher fares, will still leave them with deficits they cannot assume without risk of ruin.

The most attractive solution so far suggested would appear to be the program being tried out in Philadelphia, whereby the railroads agree to operate the service for a certain sum—local governments paying that part of the agreed price not covered by direct collections from users. Local government people who lean toward this plan seem to believe they'll have to have help from the federal government (just as these same governments are already getting a lot of federal help on slum clearance and 'urban renewal').

Our view would be that, if local governments believe they have to go to Uncle Sam for help on this problem (as they go to him for help on everything else) then *they* should assume that responsibility.

As we see it, the railroads have no economic or moral obligation to provide this service at all (since their monopoly of premium-paying traffic has been taken away from them). If they continue to provide it, they do so as a public service required by specific urban communities—and the communities that demand the service should pay the cost. No violation of free-enterprise principles would be involved in that.

From a standpoint of economics and political morals, we doubt the justification of federal aid to local governments for *any* purpose whatever, but such assistance has become an accepted practice. Federal aid to improve suburban passenger transportation would be no more immoral (or no more righteous) than the other such "aid" local governments solicit and receive.

The railroads have a right to expect fair remuneration for services rendered to communities which demand such service. They certainly would not want to receive charity in lieu of just remuneration, or even to appear to do so.

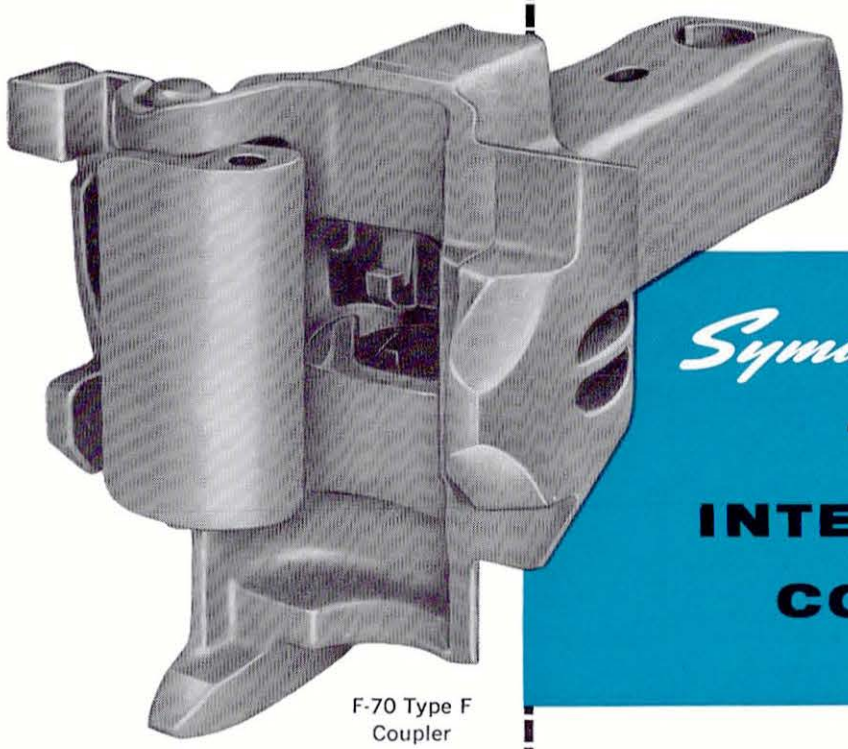
The railroads are practically unique among large industries in their complete freedom from any compromise with socialism. If they had received the credit they deserve for sacrificial adherence to strictly anti-socialist behavior, sympathetic public understanding of the complexities of their present situation would be easier to attain. Such public understanding is vitally important.

•

Railroads are confronted with no more difficult or important task than that of impressing the nation with their unswerving adherence to the principles of private enterprise—while, at the same time, not allowing the socializers (open or clandestine) to ruin important segments of the industry. A busted or abandoned anti-socialist property cannot hope to help much in the continuing fight against socialization.

Y-37 Yoke for
Twin Draft Gear

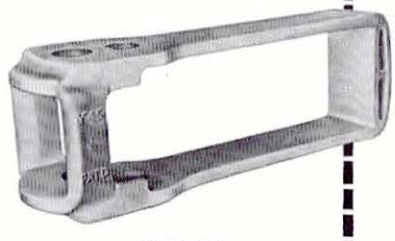
FOR HIGH-SPEED
FREIGHT SERVICE
EQUIP YOUR NEW
OR REBUILT
FREIGHT CARS
WITH



F-70 Type F
Coupler

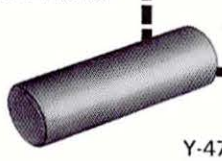
Symington-Gould

TYPE F
INTERLOCKING
COUPLERS

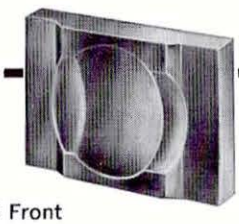


Y-45 Yoke
Standard Pocket

Symington-Gould Type F Interlocking Couplers help reduce free slack, provide threefold anti-creep protection. Easier operating, these couplers provide greatly increased strength and service life. The interlocking feature prevents vertical slipovers, keeps cars in alignment. Safety shelf on F Coupler is designed to support mated coupler in event of pull-out.



Y-47 Coupler
and Yoke Pin



Y-46 Front
Follower

THE *Symington-Gould Company*
DIVISION OF SYMINGTON WAYNE CORPORATION

GEARED TO PROGRESS
P R I
MEMBER

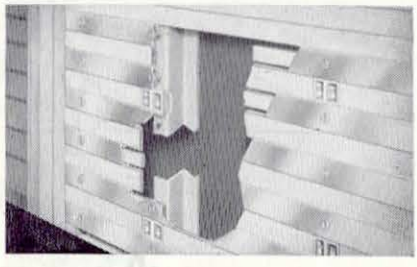
WORKS: DEPEW, NEW YORK
NEW YORK • CHICAGO • BOSTON • PHILADELPHIA • SAN FRANCISCO • ST. LOUIS
IN CANADA: ADANAC SUPPLIES, LTD., MONTREAL, QUEBEC

Here's **STANDARD'S** *responsibility to the railroads at work...*

Now, **SIDE LINING** joins Standard's Line-Rite team!

Side Lining and End Lining slash maintenance costs and out-of-service time!

Line-Rite Side Lining is a rolled, steel slat type bar designed to provide an alternate wood and steel face to the interior of the lading compartment. Dovetailed metal sockets lock each board positively and securely in place. Flanges give added support to the inserts. Side Lining is *four times stronger* than ordinary wooden lining . . . affords greater protection from excess condensation than all metal linings. This new construction provides strong protection from damage by fork lift trucks and tractors. You reduce maintenance costs, out-of-service time and shipper inconvenience . . . you'll have more cars available for high class lading. Yet Side Lining is easily installed, adaptable to any size car and does not add severe weight penalties. Wall coverage and location of lading anchors are to your specifications.



Line-Rite side lining is assembled by placing the bottom slat against the side wall at the desired height and welding studs to side posts using the slat as a welding jig. The front board is then placed in the dovetailed metal sockets, then the next slat is assembled to the side wall.

Line-Rite side lining provides for the replacement of any board without disturbing the balance of lining.

STANDARD RAILWAY EQUIPMENT DIVISION
OF STANDARD RAILWAY EQUIPMENT MANUFACTURING COMPANY
HAMMOND, INDIANA

CHICAGO, ILLINOIS • NEW YORK, NEW YORK • SAN FRANCISCO, CALIFORNIA